California State Journal of Medicine.

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Medical Society of the State of California

PHILIP MILLS JONES, M. D., Secretary and Editor

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten.

Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. XII APRIL, 1914. No. 4

SPECIAL NOTICES.

Annual Meeting Date.—April 14, 15, 16, 1914. Place, Potter Hotel, Santa Barbara.

County Secretaries Meeting.—Potter Hotel, Monday, April 13th, 6:30 P. M.

Hotel Rates—Have been published for the last two months; will be found elsewhere in this issue.

Tuberculosis Session.—Day has been changed from Thursday to Wednesday and the entire program will be found included with the general program.

House of Delegates will meet at 8 P. M., Tuesday, April 14th, and thereafter as it may determine. As business of the greatest importance is to be transacted, every delegate should be present when the roll is called on Tuesday night.

Hotel Rooms.—If you intend going to this most important meeting and have not yet reserved a room at the Potter, do so at once.

Railroad Rates.—The customary rate of one and one-third fare for the round trip. Pay the full fare going and be sure to get a receipt certificate; have the Secretary, Dr. Jones, sign this at Santa Barbara and then get your return ticket for one-third fare.

Time Limit on Tickets.—Tickets will be on sale for this meeting and will be good for the going trip from April 4th to April 16th, inclusive. For the return trip, they will be good from April 14th to April 21st, inclusive. No stopovers allowed on return trip.

Yale Club Smoker.—We are requested to announce that the Yale Club of Santa Barbara will give a smoker to the Yale men attending the meeting and that probably the Harvard Club will join them in this and invite the Harvard graduates. Full anouncement will be posted in the hotel lobby.

OF UTMOST IMPORTANCE TO YOU.

The coming meeting of the State Society at the Potter Hotel, Santa Barbara, April 14, 15 and 16, will be in many ways the most important session ever held. Problems of the widest range and of the deepest importance of any ever confronting us, will come up for discussion and for action. And we must meet them and settle them in some way; the duty cannot be shirked or put over and a general line of policy must be adopted which can be followed by the Council and the officers in their conduct of the work during the year. Every delegate should attend, even if at some personal sacrifice of time and money on his part, and every county unit should see to it that delegates are elected who will surely attend the meeting and transact the work which will be presented. It is not fair for a county to fail of representation and then kick at what may be done; the time to kick is right there at the meeting of the House of Delegates and possibly the delegate from the smallest unit may have just the right suggestion to make in regard to some pending matter. Certainly he should be there and express his views. This is no time in which to think of personal jealousies or little differences of opinion; changes have come and great changes are coming within the next few years and we must recognize that fact and meet the changes that are here and get ready for those that will be with us before we know it. "Time flies" and a few years pass before one hardly knows that they have come and gone and left their altered problems and relations and conditions behind them. How long it will be before we have state health insurance, just as we now have state accident insurance, one cannot say; but it is certainly coming and whatever plan we determine upon now for the state problem that is already with us will serve as a basis, in all probability, for the working out of the other problem when it, in its turn, comes to us. And it does no good at all merely to complain bitterly of the faults that are to be found in the present law or those which may be seen in what is to be; we are dealing with actual conditions and not with "if's" and "but's" and all that sort of thing; there is no time to waste on that kind of talk; put it out of your head and see if you can think of some better way of dealing with the actual situation which confronts you and all of us. There is every reason to believe that we can work these things out so as to do justice to everybody concerned; but we cannot do it if you just sit back and kick at what is.

OUR ONLY HOPE.

The only hope for holding up the medical profession and medical conditions in this state to-day, is in holding up and increasing the strength of the State Medical Society. As the JOURNAL said two or three years ago, the time will come (it has almost come now) when membership in the State Society will have to take the place of the official license to practice. A number of physicians have been licensed under this new law who could never in a thousand years have received a license under the old law. No county society should elect anyone to membership without first referring the name to the State Society office for investigation and report; a large number of incompetent physicians are coming into this state and the number is going to steadily increase. If it were not for the organization of the State Society, everything medical in California would be chaos, right now; as it is, we are going to come out of the present confusion with a fairly well defined and satisfactory arrangement. This is no time for fights amongst ourselves; this is just the time when we need to make our organization stronger and more closely knit and stand together solidly, acting as a unit in all matters and moving slowly and with careful and deliberate caution. If we do this, we can do the very most good for the people of our state and for our professional standing in the community.

MEDICAL DEFENSE.

We must recognize the fact and be prepared for it, that the number of suits for alleged malpractice will increase very largely in the near future—in fact is already on the increase. There are a number of reasons why this should be so. More people who are hurt will be treated by physicians; the injured person may not sue the employer and so many unscrupulous lawyers will be deprived of these "contingent fee" cases. There is left only one person who may be sued—the physician; and the same sort of cheap and scaly lawyer who would incite the patient to sue the employer, will turn his attention to starting a suit against the doctor. We do not fear the losing of any of these suits, for if such should be the case in the trial court, the result would undoubtedly be upset on appeal. But the volume of the work will greatly increase and consequently the cost of it. Experience has shown that the State Society defense is very much better than that of any insurance company—and furthermore, the State Society does not try to get out of defending an action by means of some minor technicality; the policy of the Council and its attorney, has been and is, to play the game with honest and fair liberality and they think that is the way the entire membership desires that it be done. No matter whether you are treating a patient for yourself or for some company or for the state, in every case of a fractured bone or where it is possible there may be a fracture, *insist that an X-ray plate be made and be sure that you keep it safely in your possession;* our Society would be four or five thousand dollars richer to-day, if this had been done in every case during the last few years. If the company does not want to go to the expense of an X-ray, tell them to *get some physician who is not a member of the society,* and thus protect yourself and your organization as well.

THE ACCIDENT INSURANCE SITUATION.

Representatives of the State Society, the San Francisco County Society, the State Commission and of several insurance companies have had a number of long conferences during the last month and have come to a better understanding of the case and to a tentative agreement that seems to offer a clearing up, to a great extent, of many of the apparent difficulties. Of course there will be special cases and special problems galore, but they will have to be dealt with as they come along and treated as special cases for adjustment. In general, the plan agreed upon by all is about that outlined as a suggestion in the JOURNAL for February and March. The fundamental principles are about as follows: All signed contracts to do this work in all cases are to be withdrawn or not renewed when they expire. This does away with the objection of having a definitely fixed minimum and maximum fee for a given sort of work regardless of the income of the patient. The fee schedule that will be put out is one which it is understood is to apply to all cases of accidental injury occurring to persons of an earning capacity where such fees would be as high as a physician would ordinarily charge if the patient were to pay the bill himself. In cases where special work is required, mileage, etc., special additional charges will be paid. This does away with another manifest injustice of the original plan. The employer or the company may select a physician to suit itself or the patient, from the membership of the county unit; of course a change of physician may be permitted at any time, in case there is reason to believe that the treatment might be better or for any good reason, just as is the case in private practice. If a dispute arises as to the charges made by a physician being proper or improper, it is to be referred to the County Unit for adjustment; if that does not settle it, to the State Society and if there is still a difference of opinion, to an arbitration committee of three, chosen in the usual way, one by each side and these two choose the third. This protects the companies to a very great extent, for even though a physician might send in a dishonest or exorbitant bill if he thought no one would know it, he will stop and think about doing so if he knows that it is liable to be subjected to the careful scrutiny of all his fellows; no man likes to appear in a bad light before his own kind. Sixty per cent. of the accident cases that will be treated will be very insignificant and the fees allowed will, in the end, average a good deal more than the physicians would receive if there were no such law, for a very large number of minor injuries that would never receive medical attention will now call for the services of a doctor—because the injured person does not have to pay for it! That is just human nature.

A word of caution to our County Medical Societies. Do not pass resolutions of an arbitrary and pugilistic nature; wait until this plan is perfected in its details and the matter can be passed upon by the State Society at the April meeting. We must recognize the fact that the law is here and that, in some form, it is here to stay. It is very much better for us to work in harmony with the Insurance Commission and with the companies and get things into as good shape as possible, than to fight them or be nasty and say that we won't play because certain things ought not to be so; it is not a question of what *ought* or *ought not* to be, but of what actually *is,* that we have to consider. There is not the slightest doubt but that the plan we are now working on and that will be submitted for discussion and approval at the State meeting at Santa Barbara, will put California physicians in a far better condition than that of our brother physicians in any other state where a similar law is in existence. It has taken a great deal of time and thought and hard work to get these vexatious and badly tangled problems somewhat straightened out, but it can be done and is being done. The companies and the commission have come to see the truth of what we said in the January number—that it is to their own financial advantage to be sure of good medical attention and have some control over the medical situation—and this they can only do by working with the State Society; and we can only secure more liberal and courteous treatment at the hands of the companies by working with them and helping them to the end that all parties to the contract may be absolutely sure of getting fair and honest treatment.

NOTICE!

Forty-Fourth Annual Meeting.

SANTA BARBARA, HOTEL POTTER, APRIL 14, 15 AND 16, 1914.

RAILROAD RATES. The customary railroad rate of one and one-third fare, provided 50 or more are in attendance, will prevail. When you buy your ticket to go to Santa Barbara, pay the full fare and get a receipt-certificate. When you get to Santa Barbara, present this to the Secretary to be signed and then when you get your return ticket, hand this receipt to the agent and he will give you a return ticket for one-third the full fare. Do not fail to get the receipt-certificate or to have it signed by the Secretary, for if you do, you have no redress.

HOTEL RATES. The rates this year are on the European plan and do *not* include meals.

Room, without bath, one person,	$1.00
Room, without bath, two persons,	1.50
Room with bath, one person,	2.00
Room with bath, two persons,	3.00

Those who desire may be accommodated on the American plan, in which case add $2.50 per day per person to the above rates.

PRECIPITATE PUBLICATION.

Great patience, circumspection, testing and retesting of results on a sufficiently numerous series so as to eliminate as much as possible the element of chance, coincidence or other sources of fallacy, denote the trustworthy investigator. A beautiful example of the honest scepticism and rigid self-criticism which the real scientist imposes upon himself when drawing conclusions from complex phenomena is preserved for all time in Darwin's "Origin of Species." In Koch's celebrated rules there is contained an admonition which no inquirer into the etiology of disease should presume to ignore. Wassermann and Noguchi have exhibited exemplary patience, to say nothing of other qualities, before publicly professing anything like certitude as to the value of their researches. And, lest the urgency of our need for therapeutic progress be advanced in extenuation of premature publication of alleged discoveries in this branch of science, the now famous number "606" gives us an arithmetical measure of the labor Ehrlich performed before submitting to the world his remedy for disease.

In contrast to these exemplars of scientific conscientiousness behold MM. Levaditi, A. Marie and de Martel, whose treatment of paretic dementia was recently made known to the public through the daily press. On the first day of December 1913, as we now learn from the "Comptes rendus" of the Société de Biologie of Paris, these gentlemen injected some salvarsanized serum of a rabbit under the dura mater of two patients suffering from that disease. By December 13, less than two weeks after the injections, they hurtled before the Society with the announcement that "beyond all doubt" (ce qui est hors de doute) their two patients had been "perceptibly improved (sensiblement améliorés) by this mode of treatment, especially the second, whose general paralysis is less advanced than the first."

Now, one's judgment will be straightway offended at the founding of conclusions upon so small a material where the supply is very abundant and at the haste with which whatever amelioration was observed seems to be ascribed to a specific effect of the treatment in a disease which exhibits a certain variability after the employment of one of a number of different agents and, not uncommonly, a tendency to startling spontaneous remissions. The authors enumerate as "disquieting accidents" of the treatment: intense fever, vomiting, prostration, partial convulsions, catatonia. A permanent beneficial effect would hardly be expected from a method of treatment which causes an organism to suffer so severely; but these gentlemen might at least have reflected that the improvement they discerned was possibly analogous to the change observed in the state of some paretic dements after an acute infection attended with fever, a delusive change which led to a trial of tuberculin in this disease. It is, however, not yet worth while to discuss the asserted value of the remedy or its mode of action; for what the "sensible amelioration" achieved by it amounted to is demonstrated in the first patient by the necessity at present (actuellement) of taking precautions to prevent him from removing his bandage and by his apparent inability to understand what is said to him (ne parait pas comprendre ce qu'on lui dit); and in the second case, while the patient at present laughs at his former extravagances,—ideas of wealth and persecution in February and March 1913—it is stated that he had received an intraspinal injection of neo-salvarsan in June of 1913 and *before* the present treatment was working and no longer had delusions (Avant le traitement actuel, le malade travaille et n'a plus de délire).

Levaditi is an investigator of merit in microbiology and A. Marie is the name of an industrious alienist; but something more than their reputations would be required to inspire confidence in a method applied so briefly and to so scanty material and in conclusions adopted so uncritically and published, we may say, impetuously. No doubt there is as strong a proclivity in certain members of the medical profession as among certain other elements of the population to accept with eagerness importations from Paris. We would admonish these not to "try" the new treatment until they can assure the patient of some substantial benefit in return for such "disquieting accidents" as intense fever, vomiting, prostration, partial convulsions and catatonia.

ECONOMIC WASTE ON A LARGE SCALE.

Some time ago the JOURNAL commented on the great economic waste involved in the maintenance of two medical departments connected with two universities in California. There is no demand for two schools of this class and there can be no justification for their existence, based on anything but personal motives. The amount of money expended in the duplication of effort, totally unnecessarily, is already very great and will be an increasing amount reaching into the millions, as time goes on. Salaries, buildings, hospitals, maintenance expenses, all are doubled and the available material for teaching is halved. Where, in the name of common sense, is the use of it all! All the students in both schools could be handled to better advantage in one school and the saving that would result from consolidation would be enormous not only in dollars and cents but in economy of effort and in perfected teaching. It is rumored that committees have been appointed by both institutions for the purpose of studying the problem and discussing the possibility of amalgamation; it is certainly to be hoped that this may be true and that they may find some way to solve the problem satisfactorily and thus put a stop to this tremendous waste. Undoubtedly there

are many, very many vexatious details that will present themselves, but when a thing is a right thing to do, there is always a way to do it; and this combination, speaking purely from the standpoint of economic saving and bettered work, is certainly a right thing to do. Furthermore, it will have to come eventually, for the trend of present day development is centralization of all educational work in the hands of the state. And this, too, is a sound economic principle, for the citizens of a state are its most valuable asset and their proper training, education and professional equipment is one of the most important tasks of any community. Of course, in the consolidation, many persons' feelings will be hurt; many will be left out; many titles will be taken away; there will be fewer "professors," etc., but that is true of every progressive change, and personal motives of ambition, greed or selfishness should not be permitted to stand in the way of what is to be for the general good of the community and the people.

CLOSING THE HOSPITAL.

Some years ago the JOURNAL commented on the fact that improved medical training and the betterment of medical work as a result of county medical society organizations were having a marked effect in the increase of the small hospital. All over the state, small hospitals were formed in communities that had previously been without any place where a very sick person could be properly treated or operated upon. The local men were studying up their surgery and taking postgraduate work and becoming competent to handle all the average surgical work that came along instead of sending the patient on a long, tiresome and often dangerous journey to a center where there was a hospital and a surgeon to operate. Last year we sent letters to a number of these hospitals that had formerly advertised in the Register and Directory, and several letters like the following were received in reply:

> "We have decided to discontinue our hospital owing to the eight-hour law for nurses and therefore will not take the usual advertisement in the Register and Directory."

As a result of this law, which does not seem to do anyone the slightest good and which an overwhelming majority of the student nurses themselves did not want, a number of small hospitals have closed their doors, citizens of the local community are thus deprived of the hospital advantages which they had had, a large number of women are deprived of their occupation and of the chance to be educated so as to go out into the world and earn their living in a truly womanly calling; and what good has resulted to anyone? If someone who knows will only rise up and point out to us the slightest good that has resulted, we will be profoundly thankful. We seem to have gone mad on the subject of making laws for anybody and everybody, whether they want them or not!

GRATEFUL APPRECIATION.

Being an editor or serving on a Publication Committee is generally a pretty thankless task; unless one chooses to be utterly spineless, and whatever the editor of this Journal may be or whatever the members of the Publication Committee may be called, it is certainly *not* that! Here is a letter recently received from a physician in an Eastern city and we publish it with much pleasure, only suppressing the name, from motives of modesty:

> "I have just finished reading the February number of the California State Journal of Medicine. I want to compliment you upon the amount of real useful material, editorial, society reports and other, which is published in your journal.
>
> "I have yet to read a copy, and I have been doing so for some eight years, which does not contain something of real interest and value, either to the physician personally or to the association of which he is a member.
>
> "Secretaries of societies throughout the states would profit by reading your journal. It is a real mind jogger."

There is more significance than merely a few kindly words of compliment in this letter and in similar ones that reach the JOURNAL office from time to time. The JOURNAL has always stood for definite, positive things; for real issues; for progress and betterment and upbuilding, and of course, in doing things positive, enemies are always made; that such will be the case is as sure as that the sun will rise and set. But in spite of the knowledge that such would inevitably be the case, every Publication Committee and the editor have stood together for what they thought to be right, even, in one instance, allowing a certain matter to go to an appeal to the Council of the State Society rather than to yield to pressure and publish certain matters which, in their judgment, should not be published. Constructive criticism and suggestions have always been most emphatically welcome; criticism based on glittering generalities has always been rejected because there are too many real important things to be done to waste time on idle speculation or impossible suggestion. If a few more people who feel as the writer of this letter feels, and who sometimes say so verbally, would take the trouble to write it and send it in, it would certainly be a pleasant and a well earned attention in the way of a compliment to the Publication Committee.

¶ FORTY-FOURTH ANNUAL MEETING OF THE MEDICAL SOCIETY, STATE OF CALIFORNIA, SANTA BARBARA, HOTEL POTTER, APRIL 14, 15, 16, 1914.

PROVISIONAL PROGRAM.

FIRST DAY.

Tuesday, April 14, 1914.

9:30 A. M.

Addresses and Reports of Committees.

1:30 P. M.

Symposium on the Relation of Joint and Endocardial Affections to Local Infections (3 papers).

1. The Relation of Local Infections to Joint Affections (15 minutes).
   Leonard W. Ely, San Francisco.
2. (Title to be announced) (15 minutes).
   C. C. Crane, San Francisco.
   Discussion opened by John Carling (Los Angeles).
3. Early Symptomatology of Bacterial Endocarditis (15 minutes).
   E. C. Dickson and R. L. Wilbur, S. F.
4. Botulism (15 minutes).
   Thomas Williams, Palo Alto.
5. Diagnosis, Significance and Treatment of Bronchial Glands in Infancy and Childhood (15 minutes).
   William Palmer Lucas, San Francisco.
6. Leukocytic Extract and the Treatment of Pneumonia (15 minutes).
   Harry B. Reynolds, Palo Alto.
   Discussion opened by W. H. Manwaring (Palo Alto).

8 P. M. Business Meeting.

SECOND DAY.

Wednesday, April 15, 1914.

9:30 A. M.

California Association for the Study and Prevention of Tuberculosis (all day).

Morning.

(Medical.)

1. Address of President.
   Robert A. Peers, Colfax.
2. Report of Secretary.
   George E. Tucker, Riverside.
3. Relation of Bovine to Human Tuberculosis.
   T. C. McCleave, Berkeley.
4. The Earliest Manifestations of Tuberculosis and Treatment.
   George E. Ebright, San Francisco.
5. Why Are Better Results Not Obtained in the Treatment of Tuberculosis?
   F. M. Pottenger, Monrovia.
6. Some Laboratory Aids in the Diagnosis of Tuberculosis.
   George H. Evans, San Francisco.
7. The Prognosis of Pulmonary Tuberculosis.
   W. R. P. Clark, San Francisco.
8. Treatment of Pulmonary Hemorrhage.
   R. S. Cummings, Los Angeles.

Afternoon.

(Sociological and Surgical.)

9. The Bureau of Tuberculosis; Its Work and Plans.
   Burt F. Howard, State Bureau of Tuberculosis, Sacramento.
10. Arequipa: An Economic and Sociological Experiment in the Care of Tuberculous Working Girls.
    Philip King Brown, San Francisco.
11. Social Insurance as Applied to Tuberculosis.
    John N. Force, Berkeley.
12. Tuberculosis—In Relation to Eye and Ear.
    George H. Kress, Los Angeles.
13. Tuberculosis of the Genito-Urinary Tract.
    R. L. Rigdon, San Francisco.
14. Surgical Stiffening of the Spine in Tuberculosis.
    J. T. Watkins, San Francisco.
15. Induced Pneumothorax. (Illustrated by Exhibition of X-Ray Plates.)
    Edward von Adelung, Oakland.
16. Business Meeting of the Association—Election of Officers, etc.

GENERAL SESSION.

9:30 A. M.

1. The Use of the X-Ray and Mesothorium in Gynecological Practice (10 minutes).
   Henry Kreutzmann, San Francisco.
2. Management of Three Cases with Relaxed Pelvic Outlet (10 minutes).
   Rexwald Brown, Santa Barbara.
3. A Rare Cause of Dystocia (15 minutes).
   J. M. Slemons, San Francisco.
4. Uterine Replacement; with particular attention to the Buteau Operation. (Illustrated with Lantern Slides (15 minutes).
   C. A. Dukes, Oakland.
5. The Dangers of Vaginal Examinations During Labor (10 minutes).
   Austin Miller, Porterville.
6. Two Unusual Cases of Hernia (10 minutes).
   J. J. A. Van Kaathoven, Los Angeles.
7. Shockless Surgery (10 minutes).
   A. B. Cooke, Los Angeles.

1:30 P. M.

1. Paroxysmal Hemoglobinuria Treated by Salvarsan with Disappearance of the Characteristic Blood Reaction (15 minutes).
   Walter Brem, Los Angeles.
2. Report of a Case of Blastomycosis (10 minutes).
   W. W. Roblee, Riverside.
3. The Function of the General Practitioner in Relation to the Study and Prevention of Nervous and Mental Diseases (15 minutes).
   Harold Wright, Santa Barbara.
4. Report of a Case of a Child Dying from an Ant Bite (10 minutes).
   T. C. Edwards, Salinas.
5. (Title to be announced) (15 minutes).
   William E. Tebbe, Weed.
6. Photography in Relation to the Medical Sciences (10 minutes).
   H. D'Arcy Power, San Francisco.

8 P. M. Business Meeting.

THIRD DAY.

Thursday, April 16, 1914.

9:30 A. M.

Tuberculosis.

1. Induced Pneumothorax.
   Edward von Adelung, Oakland.
2. The Earliest Manifestations of Tuberculosis and Treatment.
   G. E. Ebright, San Francisco.

3. Social Insurance as Applied to Tuberculosis.
John N. Force, Berkeley.
4. Tuberculosis in Relation to the Eye and Ear.
George H. Kress, Los Angeles.
5. Why are Better Results Not Obtained in the Treatment of Tuberculosis?
F. M. Pottenger, Monrovia.
6. Arequipa—An Economic and Sociological Experiment in the Care of Tuberculous Working Girls.
P. K. Brown, San Francisco.
7. Surgical Stiffening of the Spine in Spinal Tuberculosis—Report of Cases.
J. T. Watkins, San Francisco.
8. (Title to be announced).
W. R. P. Clark, San Francisco.
9. (Title to be announced).
George H. Evans, San Francisco.
10. Report of President.
11. Report of Secretary.
12. Report of State Bureau of Tuberculosis.
B. F. Howard, Sacramento.

GENERAL SESSION.

1:30 P. M.

Symposium on Gastroduodenal Ulcer.

1. Symptomatology and Diagnosis (15 minutes).
Emil Schmoll, San Francisco.
2. Roentgen Ray Diagnosis (15 minutes).
Walter Boardman, San Francisco.
3. Medical Treatment (15 minutes).
L. G. Visscher, Los Angeles.
4. What We May Expect From Surgical Treatment of Gastroduodenal Ulcers (15 minutes).
R. C. Coffey, Portland, Ore. (by invitation).
5. Surgical Aspects (15 minutes).
W. W. Richardson, Los Angeles.
6. Duodenal Feeding; Practical Demonstration (15 minutes).
H. G. Watson, Los Angeles.

Following is the provisional program of the Eye, Ear, Nose and Throat Section of the State Society:

Tuesday Afternoon, April 21, 1914.

1. Luc-Caldwell Operation; Indications and Technic. Geo. W. Caldwell, Oakland, Cal.
2. Cataract Complications.
Vard H. Hulen, San Francisco.
3. Diagnosis and Treatment of Nasal Sinus Disease. Lantern Slide Demonstrations.
John J. Kyle, Los Angeles, Cal.
4. The Surgical Approach in Cases of Nasopharyngeal Fibroma. Lantern Slide Illustrations.
Henry Horn, San Francisco.

Wednesday Morning, April 22.

1. Some Problems in Refraction.
Percival Dolman, San Francisco.
2. Intranasal Operation for Dacryo-stenosis with Case Histories.
L. D. Green, San Francisco.
3. The Influence of the Resection of the Septum on General Disease.
H. Y. McNaught, San Francisco.
4. Report of Two Cases of Thrombosis of the Lateral Sinus.
Cullen F. Welty, San Francisco.

Wednesday Afternoon, April 22.

1. Infantile and Juvenile Tabes.
Hans Barkan, San Francisco.
2. Report of an Unusual Case of Labyrinthine Deafness.
George P. Wintermute, San Francisco.
3. Further Observations on Laryngeal Tuberculosis. H. Staats Moore, San Francisco.
4. A Case of Necrosis of the Hyoid Bone.
Adolph B. Baer, San Francisco.
5. Asthma in Its Relation to the Specialist.
H. B. Graham, San Francisco.
6. The Consideration of Nasal Conditions Causing Asthma. W. H. Dudley, Los Angeles.

Thursday Morning, April 23.

1. Operations on Eye Muscles in Heterophorias.
E. W. Alexander, San Francisco.
2. Ocular Arterio-Sclerosis.
Geo. H. Kress, Los Angeles.
3. Meningitis in Its Relation to Otology and Ophthalmology.
W. P. Lucas, University of California, San Francisco.
4. Status Lymphaticus.
John Mackenzie Brown, Los Angeles.
5. The Demonstration of a Case of Anastamosis of the Facial and Hypoglossal Nerves for Facial Paralysis Following Gunshot Wound of Ear, with Recovery.
Cullen Welty, San Francisco.

Urological Section: Advance Program.

Wednesday Afternoon.

1. Early Hydronephrosis. (Illustrated with Lantern Slides.)
Dr. G. T. Courtenay.
2. Results of Supra-Pubic Prostatectomy for Hypertrophy of the Prostate.
Dr. M. Molony.
3. The Seminal Vesicles.
Dr. A. R. Rogers.

Other papers to be read at this session will be announced later.

Thursday Morning.

1. Hydrocele of the Spermatic Cord and Epididymitis Complicating Prostatectomy.
C. D. Lockwood, Los Angeles.
2. Functional Kidney Tests, Their Diagnostic and Prognostic Value.
Dr. W. B. Dakin.
Discussion opened by Dr. Wm. E. Stevens.
3. Report of Supravesical Abscess with Cystoscopic Findings.
Dr. Ralph Williams.
4. Hematogenous Kidney Infections and Their Treatments. Dr. Granville MacGowan.
Discussion opened by Dr. H. Moffitt, Dr. H. Ryfkogel, Dr. J. A. Lartigau, Dr. L. Porter.
5. Modern Treatment of Gonorrhea and Its Complications. Dr. R. L. Rigdon.
Discussion opened by Dr. V. G. Vecki, Dr. E. McConnell, Dr. G. G. Reinle.
6. Hematuria. Dr. Martin Krotoszyner.
Discussion opened by Dr. H. Meyer, Dr. G. Evans, Dr. Dudley Fulton, Dr. A. Lobingier, Dr. T. C. McCleave.
7. Diagnosis and Treatment of Diseases of the Accessory Glands of the Urethra.
Dr. A. B. Cecil.
Discussion by Dr. J. C. Spencer, Dr. M. Silverberg.

ORIGINAL ARTICLES

TUBERCULOUS GLANDS OF THE NECK; THEIR RELATION TO DISEASES OF THE NOSE AND THROAT. THE RADICAL OPERATION FOR THEIR REMOVAL.*

By BURT S. STEVENS, M. D., San Francisco.

In presenting the subject of "tuberculous glands of the neck," the writer lays no claim to having discovered anything new; in fact, if one peruses the great mass of literature on the subject one will rather early come to the conclusion that about everything that could be said has been said, and this is particularly true in reference to treatment. The ideas advanced are numerous and varied and the more one reads the more one becomes confused as to the best course to pursue in managing these cases.

It seems to me that in connection with no other surgical disease are the views regarding treatment more widely divergent, dependent upon the attitude of the observer and his opportunities and advantages for studying the disease. There is an unanimity of opinion regarding the value of hygienic and dietetic measures, but in the further treatment, all manner of procedures are advocated, the most prominent of which is a prolonged course of "watchful expectancy." Certain therapeutic and minor surgical measures appear to give brilliant results in the hands of one observer, while another obtains little or no benefit from a like treatment and the groups of cases from which conclusions are drawn range in number from one to several hundred. Radical surgery is occasionally advocated but oftener mild measures are first suggested, to be followed by a thorough operation after everything else has been tried and the infection does not clear up.

The purpose of this paper is not to review this literature—it is an attempt to present the salient points of a method of treatment that has given uniformly good results in a fairly large number of cases and it is presented in its relation to diseases of the nose and throat, because of their recognized importance as an avenue through which the glands become involved.

The statements made and conclusions arrived at are based upon observations made in four hundred and seven cases in which the radical operation was performed, a large proportion of which, before presenting themselves to us, having been treated by means other than surgical and a still larger number subjected to one or more local operations, i. e., enucleation of individual glands and evacuation of abscess cavities, with or without the injection of antiseptics.

I wish to express my gratitude to Prof. William E. Schroeder of Northwestern University Medical School for the privilege of referring to his large number of cases and for his generosity in furnishing me clinical material. During the years I was associated with him, I was enabled to observe a wealth of material of this nature and the technic of the radical operation to be described is practically that of the Schroeder Clinic.

Tuberculosis of lymph glands is a very frequent manifestation of tuberculous infection and in a great majority of the cases, 80-90% (Fischer), the glands affected are the lymph nodes of the neck. The infection occurs within wide age limits—the oldest case in my practice being fifty-one and the youngest two years of age, the latter having resisted all medical and mild surgical procedures and presenting the not uncommon condition of gradual involvement of other glands in the vicinity of those first affected.

Treatment: We all recognize the importance of good hygienic surroundings and nourishing food in the treatment of these patients and realize that nature thus assisted, checks and at times eradicates the disease but, even though we admit that under ideal conditions there is a tendency to heal spontaneously, many of us who have seen a large number of them have observed the long drawn out course of those treated by non-surgical means as well as the unsatisfactory condition of those subjected to incomplete local operating.

The enlarged nodes of the neck, due to other causes, so common in the young, has caused us to wonder if many of the cases clearing up so brilliantly under medical treatment were not other than tuberculous in nature and prompts us to emphasize the importance of removing a suspected gland for histologic examination and guinea pig inoculation—the crucial diagnostic test.

Tuberculin treatment has not been satisfactory in our hands. We administered it to fifty patients before resorting to operation, at the same time suggesting improvement in the surroundings but were unable to note any improvement that could not well be accounted for by the change in environment and more suitable food. In nearly every instance the disease progressed or at any rate did not improve and after a reasonable length of time the radical operation was resorted to.

Keeping in mind the frequency with which the glands become affected through the tonsils and adenoid tissue in the roof of the pharynx, it has been our custom, provided we have seen the cases reasonably early, to remove these structures, correct nasal disturbances, etc., and keep them under observation for a time. Following this, if they do not show marked improvement, we clear the neck. We never wait until glands break down with matting together and formation of abscess cavities and sinuses and in cases where the involvement is marked, or caseation has occurred, we do not wait, but operate at once.

The results of treatment with the X-ray I have observed a number of times and I mention it to condemn it. So far as my observations have gone, the results have been uniformly unsatisfactory. If the patients escape burns and sloughing there occurs a deep formation of connective tissue, matting together of glands and peri-glandular structures, contractures and badly distorted necks; the infection is modified but not removed and the subsequent surgical procedure rendered more difficult and the cosmetic result less satisfactory. I am

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of the firm belief that the only indication for its use in following operation in patients where there is a persistent skin involvement.

Aspiration of abscesses and injection of antiseptics, together with curettement of sinuses, ordinarily does not effect a cure, unless the process is limited and even then it is better to dissect out the diseased tissues.

On account of the occasional rapid reduction in size of an abscessed gland, individuals are often thought to be improving when, as a matter of fact, the abscess wall has ruptured and the fluid contents disseminated through the tissues of the neck, a large part of which is absorbed, and in this way other glands affected or possibly resulting in a generalized infection.

Surgical Treatment: In 1890 Christian Fenger devised a surgical technic for the radical removal of tuberculous glands of the neck by which a clean dissection is made, removing the glands and gland supporting fascia and respecting certain important structures. Up to that time the enucleation of individual glands was the rule, but it was demonstrated time after time that while this procedure occasionally resulted in a cure, the disease being very limited, there was nearly always involvement of deep glands which could not be palpated, and "so-called" recurrences were the rule. As a matter of fact, at least seventy-five per cent. of the patients presenting themselves at the present time show evidences of previous local operating; cases in which the disease is progressing. These recurrences, so-called, following operations, are not recurrences in any sense—they are necks in which the affected glands were not completely removed—glands left behind in which the process continues. Our object then should be to clear the neck of all tissues affected and this can ordinarily be done with very gratifying results.

Fortunately, the gland involvement lies within quite definite boundary lines, viz: the posterior belly of the omo-hyoid below, posterior belly of the digastric above, anterior border of the trapezius posteriorly and the median line anteriorly; there are occasional exceptions to this rule, but the exceptions in no way interfere with the dissection and complete removal of the affected tissues. One does not attempt to search out individual glands, but avoids certain muscular, vascular and nervous structures, removing the glands and gland supporting fascia by a complete and thorough dissection.

Contra-Indications: The contra-indications to this operation are certainly not numerous, the principal one being a marked pulmonary involvement. In these cases we advise against any radical operative procedure, but in several instances, where both apices were involved and the process not too extensive, we have operated with good results; in fact, under improved hygienic surroundings following the removal of this extra burden, the patients early showed signs of marked improvement.

Abscess and sinus formation have been offered as contra-indications, but this is not in accord with our observations, sixty per cent. of our operative cases having had this condition present and were the ones which did not respond to other treatment.

As a further contra-indication, involvement of both sides of the neck has been suggested, but to my mind it is a distinctly positive indication for surgical interference; as compared with one-sided involvement the dangers are simply doubled. It has been our practice to operate on one side at a sitting, allowing from three to four weeks to elapse before attacking the other side, and these patients improve as rapidly as do those in which the disease is limited to one side. Schroeder tells me that on three occasions he has performed the double operation, but that he has abandoned the practice—the shock is too great. Age is no contra-indication, although in the very young one would naturally resort to hygienic and dietetic measures for a time, hoping that the condition might improve, or at least that time could be gained.

As in other operative procedures, one aims to have the patient's general condition as favorable as possible and one would be justified, providing there was reason to think something could be gained in this direction, in waiting a reasonable length of time and attempting to build up the individual's resistance.

Technic: A description of the procedure briefly stated is as follows:

The usual general preparation is followed out and the patient's neck, shoulder and an area above and back of the ear shaved. The field having been cleansed, the patient is anesthetized—ether being the anesthetic of choice—a sand bag or air cushion placed beneath the shoulders and the head allowed to swing freely. The head is now flexed and rotated to the opposite side, the anesthetist supporting and maintaining this position, the importance of which cannot be overestimated as it keeps the structures on the stretch, and allows of a much better exposition of the field.

A posteriorly convex incision is now made, extending from a point behind the tip of the mastoid process, along the hairy border and anterior border of the trapezius muscle, crossing the clavicular head of the sterno-cleido-mastoid muscle, to a point one inch below the sterno-clavicular articulation on the same side. The incision first extends through skin, superficial fascia and platysma muscle, and exposes the external jugular vein, which is cut between artery forceps and the ends ligated. Anterior and posterior flaps are now dissected, the upper portion of the external jugular vein remaining attached to the anterior flap, these flaps retracted, and the whole posterior border of the sterno-cleido-mastoid as well as the anterior border of the trapezius muscle exposed.

Our next step is to locate the spinal accessory nerve, as it emerges from beneath the sterno-cleido-mastoid muscle, passing downward and backward in the posterior triangle, to reach the trapezius. The nerve usually leaves the muscle at a point from three-fourths to one inch above the superficial cervical plexus, and may be located by pinching the tissues with antomical forceps. When the nerve is pinched, a contraction of the trapezius muscle with elevation of the shoulder is observed.

This nerve is now freed and a temporary ligature looped about it to be used as a retractor. The preservation of the nerve often adds to the difficulty and time consumed in the operation, but it is worth while, as we thus avoid a drooping of the shoulder.

No attention is paid to the superficial sensory cervical nerves, they are entirely sensory, and, following their division, the patient notes only a loss of sensation in the area—a not altogether unpleasant condition. If an attempt is made to dissect and free them, it adds much to the length of the operation, and besides they may later become involved in scar tissue, causing much pain. The loss of sensation caused by their division usually returns in from six to eight weeks.

The sterno-cleido-mastoid muscle is now freed along its posterior border and retracted forward, exposing the internal jugular vein, which is to be seen filling and emptying with each respiration, unless the vein happens to be collapsed, which condition is rather frequent and due to the pressure of a gland mass above. The carotid vessels are also exposed but not extensively. At this stage Fenger and Schroeder originally placed a provisional ligature around the internal jugular in its lower portion, fearing injury to the vein and air embolism and also to prevent the respiratory wave which is at times annoying. If irreparable injury to the vein occurred, the provisional ligature became a permanent one, the vein ligated above and the intervening section removed. This precaution has been abandoned of late years, as no untoward effects have been noted following the aspiration of a small amount of air and if the vein is injured it is nearly always repaired and preserved. Ligating both the internal and external jugular veins on the one side has never produced unfavorable symptoms, however, and one need not hesitate to tie off and remove a section of the internal jugular if it has been injured and cannot be satisfactorily repaired.

We next locate the posterior belly of the omo-hyoid and the removal of the glands begun, working from below upward. When possible this is accomplished by blunt dissection, but frequently, on account of a periadenitis, one has to resort to the knife or scissors. A sharp hook retractor is placed beneath the border of the sterno-cleido-mastoid posteriorly and the muscle retracted and rotated forward, thus freely exposing the internal jugular and glands lying along and possibly attached to, its wall. These glands may be found on top of or beneath the vein and at times completely surround it, rendering their removal difficult and tedious on account of bleeding resulting from injury to the vein or its branches. The phrenic nerve lying on the scalenus anticus muscle, is to be seen shining through the deep fascia and is carefully preserved. The spinal accessory nerve is retracted, care being taken to avoid too great traction on the temporary ligature, and the dissection carried to the apex of the posterior triangle, all affected tissues down to the fascia covering the deep muscle being removed. The sterno-cleido-mastoid is forcibly retracted forward in its upper portion and the search beneath it continued up as far as the posterior belly of the digastric muscle, above which affected glands are rarely found. We next remove the tuberculous glands which lie on, or are buried in, parotid gland tissue, below or posterior to the ear, and it sometimes becomes necessary to remove portions of parotid tissue. It is here that we are likely to injure fibers of the facial nerve, to avoid which we dissect parallel to its fibers and carry out a blunt dissection when possible.

Before leaving the post-sterno-cleido-mastoid region, the pocket beneath the trapezius muscle and the supra-clavicular fossa are inspected and involved glands removed. In the latter region one must keep in mind the subclavian vessels, nerves of the brachial plexus and cervical reflection of the pleura and avoid injury as far as possible.

The sterno-cleido-mastoid is now freed along its anterior border and the muscle liberated from origin to insertion in order to give a complete exposition of the deep recesses. Between the sternal and clavicular heads, the muscle fibers are separated longitudinally for a short distance, exposing the omo-hyoid, immediately beneath which is the internal jugular vein. This again gives us our lower landmark, and, having retracted the sterno-cleido-mastoid backward, we commence our dissection anteriorly, following along the deep vessels up to the posterior belly of the digastric. We may at this time attack the parotid region if dissection from behind was difficult or incomplete, following which, we go towards the median line, removing involved glands lying within the submaxillary salivary, or in the submental region between the anterior bellies of the digastric muscle.

In order to better expose the field and successfully carry out the dissection in the extreme upper parotid region, it may become necessary to sever transversely, one-fourth to one-half of the sterno-cleido-mastoid fibers attached to the mastoid process, repairing with one or two mattress sutures at the close of the operation. We have never found it necessary to divide the muscle completely, neither has it been necessary to resort to additional skin incisions where the submental glands were involved.

A word regarding the handling of abscesses and intact gland capsules containing caseous material—when possible, they are dissected out without rupturing, but if this occurs, the field is protected, purulent or caseous contents evacuated, the cavities packed with gauze and the mass dissected out.

The treatment of existing sinuses also requires consideration—if they are located in the line of our incision they are encircled and removed, the elasticity overcoming the tissue loss; if anterior to our incision, it is best to excise the skin defect by an elliptical incision, going sufficiently wide to obtain healthy skin, and close with a fine suture; if located in the lower portion of the field, we excise but do not close, utilizing the opening for drainage purposes.

Our dissection completed, we go over the ground thoroughly to avoid the possibility of allowing affected glands to escape; bleeding vessels are caught and ligated with fine catgut and the whole operative field thoroughly swabbed with tincture of

iodine or irrigated with sterile water, dried, and a solution of iodoform in ether dashed over it. The head is rotated to the median line and the closure of the wound begun.

We ordinarily use interrupted silkworm-gut in closing, but the Michael skinclips, horsehair, continuous silkworm-gut or subcutaneous catgut may be employed.

Owing to the extensive surface denuded and numerous vessels severed, there is always a considerable amount of bloody serum formed during the first thirty-six hours, consequently drainage is provided. One may drain at the lower end of the original wound, passing a small rubber tube between the separated heads of the sterno-cleido-mastoid muscle, or, as we frequently do, establish an independent drainage wound in the supra-clavicular fossa, closing the original operative wound completely.

Results. In considering the results of treatment, I have confined myself to those cases in which an absolute diagnosis was made and no reference is made to a number of cases treated expectantly, in which we were unable to demonstrate a tuberculous lesion. Many cases of cervical adenitis are subjected to a "snap diagnosis" of tuberculosis, when as a matter of fact, the trouble is caused by other organisms, and this type of case, without doubt, frequently adorns the literature included in reports of cures following removal of tonsils and adenoids or the administration of tuberculins and other medicinal substances.

Of the four hundred and seven individuals subjected to the radical operation, seventy-five per cent. only could be traced, but the figures given are probably a fair index of the whole, inasmuch as they were in no way selected.

There were seven per cent. recurrences, so-called, undoubtedly due largely to incomplete removal of the affected structures inasmuch as they occurred mostly in cases operated early in practice and in localities where one is at first somewhat timid, viz., in the region of the parotid and submaxillary salivary glands and beneath the clavicle.

The immediate mortality, covering the first one and one-half years following operation, has been about two per cent., the causes of death being as follows:

Case I. Operated at Cook County Hospital, Chicago. The patient had been subjected to several previous operations and the neck was a mass of scar tissue. The thoracic duct was injured and ligated in the neck; the patient went into a rapid decline and died of inanition.

Case II. Died two weeks following operation—general miliary tuberculosis.

Case III. Pulmonary tuberculosis, at the end of the first year.

Case IV. Pulmonary tuberculosis, one and one-half years following operation.

Case V. Generalized streptococcus infection, four weeks later.

Case VI. In the first post-operative week—lobar pneumonia.

Case VII. Died on operating table, due to a crushing injury to the pneumogastric nerve.

Case VIII. Died on operating table from shock. Mistaken diagnosis in an emaciated girl, ten years of age. Section showed the growth to be an endothelioma.

Case IX. Gland removed for diagnostic purposes—died five weeks later from tuberculous meningitis.

Conclusions. I.—Following attention to the nose and throat and the ruling out of skin lesions in the areas from which the cervical glands receive drainage, individuals presenting a cervical adenitis which shows no early signs of clearing up, should have a gland removed under local anesthesia and be given the benefit of a microscopic diagnosis.

II.—When a diagnosis of tuberculosis has been established, young individuals especially should have the advantage of good hygienic surroundings and proper food when possible and kept under observation for a time, but one should not wait until the glands break down with the formation of abscesses and establishment of fistulæ, before resorting to a thorough operation.

III.—The repeated operation of enucleating individual glands, as well as aspirating and injecting cavities, not only disfigures the neck, but allows the disease to progress in recently involved glands, particularly the deep ones which we are unable to palpate. There is also the danger of penetrating a large blood vessel and forcing infectious material into the circulation.

IV.—The X-ray has no place in the treatment of this condition unless it be in the very rare cases with a persistent tuberculosis of the skin, following operation.

V.—The line of incision suggested permits of access to all recesses necessary and the scar, following the hairy border, covered in the upper portion by the hair and in the lower by the clothing, shows but little and is not as unsightly as one placed further forward.

VI.—The non-surgical treatment means a prolonged treatment, extending over months or years, during which time a local trauma or generally lowered resistance may cause sudden activity with great destruction of tissue and widespread infection.

VII.—This type of tuberculous infection is rendered particularly favorable, owing to the fact that it can ordinarily be completely removed, and at the present time the radical operation is by far the best method of treatment we have to offer the patient.

THE PSYCHOLOGICAL STUDY OF MENTALLY DEFECTIVE AND OTHERWISE EXCEPTIONAL CHILDREN.

By ERNEST BRYANT HOAG, M. D., Los Angeles.

In ancient times the feeble-minded, like the insane, were objects of derision, cruelty and persecution and were often summarily disposed of.

At a later period, especially during the Middle Ages, these unfortunates were treated with less severity and became in many instances the "fools and jesters of the royal courts." By some, these idiots and imbeciles were regarded with superstitious respect and it is said that the great astronomer Tycho Brahe, listened with reverence to the mean-

ingless chatter of a fool who had become a constant companion in his observatory.

In this incident we are reminded of the fact that the German psychologist Freud, who is just now occupying the center of the psychological stage, would have us believe that the ravings of the maniac are all of significance if we could but read aright the workings of his disordered sub-conscious mind, and we can not but wonder whether Tycho Brahe and Freud are not entitled to about the same amount of respect in this particular connection.

In the period of the Renaissance the public attitude toward the fool again became one of cruelty and derision. The scientific study of mental defectiveness traces its indirect origin in the early writings of Rousseau, and Pestolozzi and Froebel who became the founders of modern child study. Somewhat later the early fathers of physical education, especially Basedow in 1774, Salzmann, in 1784, and Peter Ling in 1776, still further developed the scientific study of childhood. All of this early work, dating back particularly to the influence of Rosseau, led naturally but very slowly from the study of the normal to that of the sub-normal child.

About the year 1800 a wild boy was discovered in the woods of Aveyron in France and brought to Dr. Itard, Physician to the School for Deaf Mutes at Paris. In 1801 Dr. Itard published some accounts of his study of this boy's intellect, in which he attempted to discuss whether ideas are innate, or only abstracts from experience. This was probably the first scientific study ever made of a defective intellect.

Edward Seguin, another French physician, became so greatly impressed with Itard's studies that in 1837 he "founded a school in Paris for the education of idiots, the first school founded for this purpose in all the world."

The scientific study of the mentally deficient child dates then from a period only a little over seventy-five years ago.

In 1834 as we have seen, Seguin began the study of a few idiot children, and this work he afterwards developed on a large scale in the Bicêtre Hospital, in Paris. At about the same time that Seguin began his serious study and training of defectives in Bicêtre, Dr. Salgert in Berlin and Dr. Guggenbuhl in Switzerland undertook a somewhat similar line of study.

In England the serious study of feeble-mindedness seems to date from about 1843, and in 1848 Park House, Highgate, first undertook the treatment and training of the defective.

In America the first school for defectives was opened in 1848, when the Legislature of Massachusetts appropriated a small sum for this specific purpose.

Soon after the establishment of this school Dr. H. B. Wilbur opened a private school for similar purposes in Barre, Mass. State schools were established in New York (1851), in Pennsylvania (1853), in Ohio (1854), in Connecticut, Kentucky and Illinois between 1855 and 1865.

After 1865 the increase in state schools for defectives was rather rapid and in 1908 there were thirty-one such institutions, accommodating something over 18,000 cases. From a cursory survey of the early history of the study and training of defectives, we may now pass to a consideration of some of the most recent developments in connection with the study of this class of sub-normals.

A mental diagnosis is at the same time a *prognosis.* Every physician of much experience is occasionally called upon by anxious parents to express opinions concerning the mental state of certain children, and upon such opinions is often based the entire future training of the child.

Until recently neither psychologists nor physicians have had any very definite means for estimating the mental capacity of either children or adults, and a diagnosis was therefore usually inaccurate and often misleading.

Various classifications of the mentally deficient have long been in use, but these have never given much evidence concerning intellectual potentiality, and have therefore been of relatively little value in establishing a prognosis. Since 1905, however, when Binet and Simon, two French psychologists, published their first intelligence scale, means have been at hand for the successful classification of mental capacity, and there is at present therefore no longer any excuse for failure to do so. The physician who is to-day ignorant of these relatively simple psychological tests is in much the same position as one who is unacquainted with the Wassermann reaction or of anti-typhoid vaccination.

Every progressive physician should at least know that such tests are available and in what kinds of cases they are likely to prove of value. The mental measuring scale with which this paper deals has come to be familiarly known as the Binet test or scale. In 1908 Binet revised his tests, and in 1911, a short time before his death, he still further improved them.

Since 1911 other psychologists in various parts of the world, but particularly in America, have offered suggestions based upon careful experimentation for increasing the accuracy of the tests, and among these experimenters some of the most important changes have been introduced by Dr. Goddard of Vineland, N. J.; Dr. Kuhlman of Faribault, Minn.; Dr. Huey of Johns Hopkins, and Dr. Terman of Stanford University. Dr. Terman has remarked that "it is something of a mystery why the scale method in the application of mental tests should not have come into general use long ago. For twenty years numerous experimenters applied tests covering almost every type of mental function, and certain correlations were crudely attempted and interesting suggestions were made, but all will admit that for the most part these tests were fruitless. . . ."

Then came Binet with his simple device of arranging the tests in series or groups according to their difficulty as determined by age differences in performance. His data were of very limited extent and rather carelessly elaborated, but the advantages of this procedure are every day becoming more apparent and are rapidly making possible a *clinical child study.*

At the same time it must be admitted that the scale is far from accurate and that it is improvable at many points.

Before explaining in some detail the nature and application of the Binet scale for measuring intelligence, it may be of some interest to consider some of the older common classifications of mental deficiencies. First of all, there has been in the past no general agreement as to the meaning of terms as applied to mental deficiency. Idiot, imbecile, feeble-minded, fool, have all been used as almost synonymous terms. Other common terms used in the general classification of so-called imbecility are those of Ireland, viz.:

Mongolian; Microcephalic; Cretin; Hydrocephalic; Spastic. All of these types belong in the developmental group of mental deficiency.

Among the acquired types we find the following: Eclamptic; Epileptic; Inflammatory; Syphilitic; Amaurotic; Traumatic; Hypertrophic. These various expressions are mainly of use merely for purposes of clinical grouping, and even in this respect are ill-defined and somewhat misleading.

As Dr. Still remarks, "To classify an imbecile as a microcephalic is merely to describe the appearance of the patient; it tells us nothing of etiology or pathology, for there are many different causes which may lead to this arrest in growth of the brain and even the gross changes are by no means always the same in the brain of the microcephalic *idiot*. In some cases the arrest of development affects the whole brain uniformly, in other cases the arrest seems to affect only certain parts. Sometimes in spite of the small size of the head, hydrocephalus has been found in the microcephalic brain."

What is needed therefore are some terms which express definitely the mental status of an individual aside from either the pathology or etiology of the case.

This is what Binet has succeeded in accomplishing, and his classification expresses mental capacity fairly definitely in terms of the normal individual of a given age.

For example, a *Cretin* may, as in the instance of one I recently examined, have an actual age of 45 years, while the mental or intellectual age is only that of a normal three-year-old child. Or we may discover a 16-year-old school boy of normal general appearance who is retarded several years in school, and whose mentality is only that of a fairly normal boy of eight years.

Binet therefore measures mental deficiency on the one hand or precosity on the other, in terms of normality. An individual whose mental age does not exceed two years is an Idiot; one whose mental age does not exceed seven is an Imbecile; one whose mental age does not exceed twelve years is Feeble-minded, or is what Goddard calls a *Moron*. A precocious child of five years on the other hand may have a mental age as indicated by the Binet tests, of seven years.

PURPOSES OF THE TEST.

The Binet tests furnish not only a practical diagnosis but coincidently give a reasonably exact prognosis. What we most wish to know about a given case of mental deficiency is, first, to what degree is deficiency present; second, how much further development may be expected; third, what sort of education, if any, will the child profit from; fourth, is the case one for custodial care or will it be possible for the child to take his place in the world as a more or less independent citizen; fifth, has the child any criminal tendencies; sixth, are there any other abnormal tendencies which might make the child a menace in society.

The Binet scale offers much information on these points. It does not always give exact results, it is true, but it does furnish data from which we may draw more satisfactory conclusions than from any other method ever developed in the field of psychology.

Many a Moron is at present unrecognized as such. In school he is perhaps regarded merely as rather dull or exceptional in certain traits; in life he is a failure in nearly everything he undertakes, although the real cause is frequently unrecognized.

Such a child passes out into life with the physical strength and many of the natural instincts of an adult normal individual, but with few or none of the normal powers of inhibition. He or she therefore easily falls a victim to criminality, prostitution, illegitimacy, pauperism, alcoholism, morphinism, or some other of the various manifestations of degeneracy. He is quite incapable of successful competition in the world and so almost invariably fails of success in what he attempts. Our juvenile courts furnish at least 25% of mental defectives; our penitentiaries appear to furnish nearly 50%, and the vagabonds, paupers, prostitutes and riff-raff of life in general add their quota to the Moron and other defective types of mentality.

NATURE OF THE TESTS.

The original Binet tests consist of a series of questions and directions based upon a study of a large number of normal children from three to thirteen years of age. More recent developments of the system have extended the scale down to infants of one year and upwards to young adults of fifteen.

These questions and directions are not haphazard but were first thoroughly tested out on a large number of normal French children and later applied to large numbers of English and American children. In the main the results with the tests as used by various psychologists in different parts of the world are remarkably uniform. It cannot be said therefore that the tests are any longer in the experimental stage, except in matters of some details which do not greatly affect general results.

An average normal child of three years will point to his nose, eyes, mouth, ears, when asked to do so. He will repeat two numerals; will enumerate the principal objects in a picture; will give his name; will repeat a simple sentence of five words.

At five years, an average child will copy a square correctly; will repeat a sentence of eight

or ten words; will successfully compare the weights of two objects of equal size but varying nine grams in weight; he will count at least four familiar objects, such as pennies, correctly; he will put together a card which has been cut into two triangles, so as to form an oblong card like one placed uncut before him.

A child of six knows whether it is morning or afternoon; he will define a fork, table, chair, house, in terms of *use;* he will copy a diamond figure when placed before him; he will count thirteen familiar objects, such as marbles; he will recognize the difference between pretty and ugly faces in a picture given him to test his esthetic sense.

At eight years of age a normal child will state a difference between paper and cloth, wood and glass, and other perfectly familiar objects; he will count backwards from twenty to zero; he will recognize that certain features are omitted in a mutilated picture of a face or form, such as the eye in one picture, the nose in another, the mouth in another, the arms in another; he will repeat five numerals; will repeat the days of the week and tell what day it is when he is being examined.

At ten years the normal child will successfully arrange in order five weights of the same size (usually small cubes), but weighing 3, 6, 9, 12, 15 grams, respectively; he will copy two rather difficult figures from memory; he will recognize absurdities in a silly story; he will put three given words in a sentence of his own making; he will reason about incidents related to him; for example, what would you do if you broke something which did not belong to you? He will arrange the parts of a simple puzzle picture correctly, or will fit pieces such as triangles, squares, circles, crosses, etc., into their proper places in a form-board.

A normal child of twelve years will repeat seven numerals; tell what words rhyme with others, such as dog, tree, book, etc.; he will repeat a sentence of twenty-four syllables; he will complete the meaning of an incomplete sentence of diverse facts; he will resist suggestions in respect to length of lines placed before him and correctly estimate length of lines in relation to each other.

At fifteen the child will distinguish the meaning between abstract terms, such as laziness and idleness, happiness and honor, poverty and misery, pride and pretension; he will summarize from memory a rather long passage after it has been read to him; he will tell the time without looking at the watch when he is told that it is 2:45 and the hands must be interchanged.

These are a few of the many tests included in the Binet scale and in its revisions by various psychologists.

In estimating a child's age he is given the age for which he passes all the tests, and to this are added one-fifth year for each additional test passed in a higher age period.

Failure in several tests are of very little consequence because of the number of tests given. The intention of the tests is to estimate intelligence and judgment, and therefore education is supposed to have little to do with the matter. As a matter of fact the tests are arranged primarily for school children, and education and information do enter somewhat into them, but in the end these undesirable features will no doubt be eliminated.

APPLICATION OF THE TESTS.

The Binet scale although originating in France has been considerably modified by a number of psychologists in different parts of the world. In practical use it has been employed not only by clinical psychologists but by a good many teachers and physicians. In the hands of certain intelligent teachers it has served to help in the solution of many of the problems of school retardation; in the hands of certain medical men it has served to aid in the diagnosis of many cases of mental peculiarity which would otherwise have been left either undiagnosed or very imperfectly diagnosed. In the study of juvenile delinquency, especially in connection with juvenile courts, it has solved many problems which would otherwise have remained little understood, if understood at all.

The army and navy have made a beginning in the use of the tests as a means of estimating the intelligence and judgment of enlisting men.

Certain penal institutions, notably Jeffersonville, Ill., and St. Cloud, Minn., have used the tests to estimate the amount of mental deficiency present among their inmates.

Chicago has to-day the best Psychopathic Clinic in the world in connection with a Juvenile Court. This is under the able management of Dr. Wm. H. Healy, a medico-psychologist.

It has been suggested by Dr. Huey that the tests may be profitably used by the employers of men occupying responsible positions where emergencies may at any time be encountered, and that in this way, the time re-action, judgment, general intelligence and mental stability of men entrusted with important work involving the lives of others may be estimated.

In the Pediatric Clinic at Stanford University, the tests are being used in connection with the physical examination of children who come from the Associated Charities, to the end that defective or otherwise mentally peculiar children may be recognized and therefore intelligently understood and properly cared for.

The tests are also used in this clinic whenever any of the routine cases of the general clinic suggest the desirability for a careful mental examination. Advice to parents in respect to education or training is in this way often possible to a degree of exactness, otherwise quite impossible.

In public and private institutions for defectives it is rapidly coming into use as a routine procedure in the classifications of degrees of defectiveness, and to-day the school for defectives which has no provision for a laboratory of clinical psychology does not deserve the full respect of the public. In the public schools, laboratories for child study or departments of clinical psychology are becoming rather common and in all of them the Binet

scale holds an important place in the daily routine of child study.

No other methods have ever served to so successfully classify the mental capacities of school children. The exceptional school child may now hope to be intelligently understood, and therefore properly trained. The precocious school child may hope to receive the attention he has so long deserved. In a word, the defective, the dull, the misfit, the precocious, may now be properly classified and the school program fitted to his particular needs, a procedure which will go far toward placing our public schools on a rational educational basis, which no one who knows schools has much reason to believe has as yet been done.

New York City, Grand Rapids, Mich., Hibbing, Minn., Los Angeles, Long Beach, Chicago, Cleveland, Seattle, and Minneapolis are among the cities maintaining laboratories of clinical psychology in connection with their public schools.

The intelligence tests should be used not only to grade degrees of deficiency but also degrees of superiority or precosity. Of the exceptionally bright pupils we recognize both pathological and normal cases. As Dr. Groszman has well said, "The latter class exhibits merely a more rapid rhythm in the rate of physical and mental development, and the children belonging to this class are otherwise perfectly balanced and sound. As long as the equilibrium of mental and physical growth is maintained, children of this type can be safely allowed to go on in school training, after their own individual fashion and rate."

The Binet tests therefore serve to classify both the bright and defective school children, and from the data secured logical methods of instruction may be put into effect, which do full justice to both of these types, as well as to the average child.

Our school system at present is arranged for some of the children of some of the people instead of for all of the children of all of the people, but the Binet scale ought to go far toward bringing about the proper classification and school adjustment of all of the school children.

A word of caution is needed to guard the inexperienced against supposing: 1st, that the Binet scale is a perfectly reliable method for estimating intelligence in terms of age levels, and 2nd, that it can be used to the exclusion of common sense methods of observation or of other well known psychological methods. The trained psychologist will use the Binet scale merely as an aid to many other methods of testing intelligence. The less experienced physician or teacher will use it largely as an aid to general observation combined with physical or pedagogical methods.

Psychologists in the main regard the use of the Binet scale on the part of any except trained psychologists, with a fine contempt, and usually grant scant, if any, recognition of the results obtained. From a rather extended opportunity for observation I can only reply to such that the proof of the pudding is in the eating, and that in the hands of certain teachers and physicians, even when these persons have not received extensive training in exact psychological methods, I have seen excellent results obtained. Nor can I refrain from the remark that many psychologists are extremely likely to magnify the importance of their particular sort of training and at the same time minimize that of the scientifically trained physician. My own opinion is that some teachers and many physicians can make excellent use of the Binet tests in their respective lines of work and that they should be encouraged to do so. Teachers should obtain some preliminary training at some such places as the University of Pennsylvania with Dr. Witmer; Vineland, New Jersey, with Dr. Goddard; Faribault, Minnesota, with Dr. Kuhlman; Lincoln, Illinois, with Dr. Clara Town, or Stanford University with Dr. Terman. This training need not necessarily exceed a few weeks. Dr. Goddard of Vineland has for some years maintained such a course for teachers. Physicians of scientific training, natural aptitude with children and some experience in neurology, psychiatry and pedriatrics, may rather easily begin this line of work without much additional training, although to them, also, a few weeks spent at any of the institutions named will naturally be of great service. For the physician or teacher absolutely exact results in this work are not necessary and it is doubtful if even the psychologists often obtain such.

What the physician and teacher really want to know is the general mental status of a given case.

It makes little or no practical difference whether a child is actually seven or nine years old mentally. What does make a difference is whether the child is educatable or non-educatable; to what degree he is educatable; whether he is retarded permanently or temporarily; whether he is low, medium or high in the intellectual scale, and these questions may often be solved by use of the Binet scale combined with a liberal use of common sense methods of observation. The scale also gives evidence of particular aptitudes or deficiencies, and this is of the greatest importance in laying out a course of advice or of education for the child.

THE THERAPY OF TYPHOID FEVER—A CRITICAL REVIEW.

By E. O. JELLINEK, M. D. San Francisco.

In spite of the advance in the treatment of morbid conditions, brought about by the steadily growing knowledge in bacteriology, sero and chemotherapy, we find ourselves still confronted with the painful fact that for the vast majority of diseases we have no specific treatment. Even the most optimistic disciple of science, when he reflects upon the problem to be solved, will realize that the whole question of the specific serum, vaccine, or chemotherapy of the various infections, is still in its infancy, and that it may take the efforts of generations to win supremacy over the world of micro-organisms with their unlimited power of proliferation.

Although, as far as typhoid fever is concerned, hygienic measures, and perhaps still more than these, the immunizing with typhoid vaccines, have

actually minimized the possibility of the spreading of this much feared epidemic, yet, the hopes raised upon the curative value of typhoid vaccines and other serological measures have so far at least been unsatisfactory.

But before these problems are solved—in other words, before we are able to attack this enemy with active measures, we have to fall back on the second possibility as the only one left in the fight, namely: to support the resisting powers of the tissues in the hope of exhausting the enemy, so they are able to supply autogenic anti-bodies, which are so essential for preservation of life against the rapidly multiplying intruders. This point of view has been recognized in a way for many years, and a routine treatment has prevailed for more than three generations, and is still considered by the majority of the profession as a proper regime, which is in brief: To take care of the ulcerated conditions in the intestines by admitting food in the shape of the least irritant character, namely, milk and albumen water, and these in small quantities; to give the intestines the least possible work and irritation. To disinfect the intestinal tract in the hope of killing the typhoid germ by administering calomel. To decrease the temperature by cold baths 70 degrees down to 60, and at the same time by supplementing these cold baths with friction while in the tub to increase the circulation and by doing so, to raise the tonus of the tissues and strengthen the heart and consequently arouse the patient from his delirium.

The intention of this paper is to submit the general adoption of this regime of treatment to a critical consideration, with reference to a modification of the so-called routine treatment, which I practice, the latter being based on the experience of more than 250 cases.

Before discussing the main subject, and without any intention of dwelling upon the prevention of the disease in question, which is not the purpose of this essay, I feel duty bound to mention the preventive vaccine which, according to our government statistics, is of unquestionable value. Commenting upon the treatment which I practice, a few words of general hygienic routine might not be out of place.

Whenever the diagnosis of typhoid fever is established, or even a suspicion of such an infection exists, hygienic measures have to be enforced. The patient ought to be moved to an up-to-date hospital, where every convenience of modern treatment can be applied. If for one or the other reason the hospital treatment should not be permissible, the choice of room should be one that is large and airy and permits of ventilation day and night, without exposing the patient to draft. The temperature of the room should be 62 to 65 degrees, and only if the patient has to be exposed for the baths, for instance, should the room be heated up to 68, but surely not over 70 degrees. The bed should be set in such a way that it is easily accessible from both sides, and a single narrow bed has certainly the preference over the wider ones, for the easier handling of the patient.

The importance of the hygiene of the mouth and throat is obvious. The falling out of the hair is mostly due to poor nursing. There is no harm in cutting the hair of a male patient, for it makes more favorable conditions for attending the scalp. Daily shampoos with green soap prove of the greatest benefit. The custom of cutting a woman's hair for treating the scalp to prevent the falling out of the hair, is, in my opinion, unpardonable. The scalp of a woman can be most properly taken care of by rubbing it with alcohol daily and with green soap once or twice a week, if comb and brush are used morning and evening and the hair braided to the right and left.

A sheet and one blanket are quite sufficient covers and additional covering and hot bags should be used only in case of a chill which might be due to the infection itself or complications. Chills frequently are caused by exposing the patient with a temperature of 104 to 105 degrees, for the purpose of sponging, taking rectal temperature, using the bed pan, or in giving enemata. All these procedures ought to be performed under the covers of the patient. As the rectum of the patient is greatly taxed by taking regular temperature every four hours, and by enemata once or twice a day (nearly all my patients, properly fed, are constipated, and require enemata), there must be extreme care taken to irritate the rectum as little as possible. The index finger covered with a finger cot and white vaseline, not carbolized vaseline, is very gently introduced into the sphincter while the thermometer, or hard rubber point of the tube of the enema bag, held by the other hand, is pushed forward very gently, the inserted index finger leading the way.

In taking up the treatment of typhoid fever, *the most important point to consider is the diet.* There is a tradition that lived for generations, namely, "Starve a fever and nurse a cold." This is attributed to a physician, and unfortunately this regime has been and still is, carried out. I believe that the man who was responsible for this doctrine, which he gave to the world in good faith, has caused the deaths of more victims than the powder and lead of modern warfare. Reasonable common sense that can be expected from the professional man must make it clear to any thinking brain, that an increase of heat means an increase of combustion, and if fuel is not supplied from the outside for this combustion, it must be taken from the inside—that means from the tissues. Now, if the fever is expected to run from three to six weeks, as is common in typhoid fever, and the food supply from the outside is set at the minimum, the supply from the inside fuel must be taxed to a maximum to make up for the deficiency of the outside supply. The consequence is the loss of tissue and this loss of tissue amounts to 20 to 30 pounds of the individual's body weight by this starving-the-fever regime. This loss of weight seems to me a very serious matter from several points of view and worthy of very earnest consideration.

If this loss of weight would be due to the combustion of a surplus of accumulated fat only, nothing better could be wished for, because it would relieve the heart of nourishing so many pounds of surplus fat so many times a minute, but unfortunately the tissues at the same time are contributing their carbohydrate and nitrogen, and all organs contribute their share. The most important of all being the heart, it will be easily understood that by weakening the heart muscles by starvation, the chances of fighting the infection are certainly badly impaired, and second to this

impairment of the heart, the rest of the already less resistant tissues are not sufficiently nourished and toned up, on account of the impaired heart action!

If we further realize that the self-defense of the tissues against the intruder consists in producing anti-bodies and that the final outcome lies in the superiority or inferiority of these anti-bodies, it will easily be understood how badly we jeopardize the chances of the infected individual by allowing him to lose 20 to 30 pounds of tissue, and depriving him, in that way, of 20 to 30 pounds of tissue-generating anti-bodies!

On one hand, the loss of anti-bodies; on the other, the lower resisting power of the tissues through under-nourishment and impaired blood supply by the heart! Hence a delirious state of the central nervous system, unable to hold its own against the impact of the infectious toxins! Hence an inability of the intestinal tissues to cope with the ulcerations, by producing healthy granulations; the results are hemorrhages and perforations! The same holds good for the skin and the sub-cutaneous tissues, which cannot resist pressure from the outside on account of not being toned up sufficiently, and so they become necrotic,—thus the bed sores! The weakened condition of the skin gives free access to germs from the outside—furunculosis results.

The hypostatic and the edematose status of the lungs, on account of the weakened condition of the heart and tissues, predisposing to invasion of the infection, complicate matters with pneumonia, infiltration, etc.

So much about the theory of "starve the fever." The other alternative is to feed the fever, and the question forced upon the practitioner is extremely important, inasmuch as quantity is concerned as well as quality.

There is still a dominating doctrine prevalent that the food must be such as not to irritate the ulcerations of the infected intestines, and the least irritant food, it is claimed, is milk.

I bar milk from the dietetic list altogether, and insist upon the following consideration:

It is generally accepted that the average healthy workingman needs 15 to 17 calories per pound of body weight, to keep in equilibrium. The caloric value required by a fever patient is at least 20 calories to the pound of body weight,—that means that an individual weighing about 150 pounds has to be supplied with at least 3000 calories.

A quart of *good milk* is estimated to represent 670 calories. To keep such an individual in equilibrium on a milk diet would require, accordingly, 4 to 5 quarts of good milk a day. It is obvious to say that the throwing of 4 to 5 quarts a day into the circulation will not benefit the fever heart. More so, if we consider the large quantity of albumen water and spring water given besides to "flush the kidneys"—still more work for this already so badly taxed heart!

But, it is claimed, milk will not form copious stools, consequently will not irritate the ulcers!!

The immortal Banberger used to preach to his students, never to attempt to prescribe for any patient unless we kept in mind the anatomico-pathological picture of the morbid conditions. In doing so we will be aware that the ulcerated lesions are found in the ileum and cecum, rarely higher up in the colon, and still rarer in the lower part of the jejunum.

As food, of whatever consistency it might originally have been, will reach the ileum in a chymified form, the question as to irritating the intestinal ulcers is utterly irrelevant. As far as the influence of the milk diet is concerned in regard to the bowel movements, I could never convince myself of any favorable point in this regime. In the vast majority of these cases there will be from three to five and more diarrheal stools, with curded milk particles left in the evacuations. These milk particles, which must have been rolling over the ulcerated area and most likely have been precipitated there, for a short time at least, are likely to have been of an irritating nature, causing increased peristalsis, which is proven by the number and character of the evacuations.

The increased peristalsis in an ulcerated area will certainly not increase, but decrease the faculty of healing and rather have a tendency to lead to complications from these ulcers. The slower the peristalsis, the less will be the irritation of this ulcerated area, with its sequels.

As the quality of the milk food, as well as the quantity necessary to supply the satisfactory amount of calories, is not favorable to the metabolism of typhoid, a regime must be adopted where the caloric value of the food is supplied in a far less quantity and be of such quality that it will not produce an increased peristalsis.

Let us compare for this instance, the caloric value of milk with other permissible food material:

100 ccm. milk represents 61 to 67 calories.
100 ccm. cow's butter represents 761 calories.
100 ccm. bread—oatmeal, rice, tapioca, or farina represents 330 to 350 calories.
100 ccm. albumen represents 400 calories.
100 ccm. cream represents 240 calories.

Considering that a normal individual will be plentifully supplied with a daily ratio of 60 to 70 grams of albumen, and that the fever patient is splitting up albumen, our first consideration must be to supply sufficient albumen to satisfy the normal daily demand, and to make up for the consumption due to the fever.

I am satisfied that I answer both of these postulates by feeding 100 to 120 grams of albumen a day. In supplying these 100 to 120 grams of albumen as an essential fundament of building up my caloric plan, I proceed in the following way:

One quart of milk—1000 ccm.—equal to 670 calories, which I use as a vehicle only, represent 32 grams of albumen.

200 to 250 grams of oatmeal represent about 20 grams of albumen.

Four to six eggs, or 100 grams of meat (if I choose to use the latter), will give me 50 to 60 grams of albumen.

In total—about 100 to 110 grams of albumen,

not considering the small amounts of albumen in cream, butter, etc.

Taking these figures as an essential base for the maintenance of an equilibrium of body proteids, as close as possible, it will be easy to construct our bill of fare in regard to the caloric value, as well as to its fitness in regard to proper quality and quantity.

These postulates would be outlined by the following general schedule, which is open to all kinds of combinations and changes:

Fever patient—150 pounds of weight—requires caloric value of food—3000 calories.

1000 ccm. milk (as vehicle) equal to 610 to 670 calories.

250 ccm. carbohydrates—bread, oatmeal, rice, farina—equal to 850 calories.

100 to 150 ccm. butter—equal to 760 to 1000 calories.

4 to 6 eggs—equal to 300 to 450 calories.

100 to 200 ccm. cream—equal to 240 to 280 calories.

Eggs may be substituted by scraped meat and vegetables in puree form. It is obvious to say that this diet cannot be enforced from the first day of treatment, and that we have to feel our way gradually. It is furthermore just as important to cater to the taste of the individual and to avoid distaste by giving variety.

Just at the time in the beginning of the disease, when the patient is feeling general malaise, with lack of appetite and will refuse food, the skill and tact of the physician has to set in to make his patient eat, and step by step increase the supply of necessary calories and increase the amount of calories with the increase in fever.

In proceeding this way, I have very rarely encountered very much difficulty in feeding. The difficulty I have had arose in cases only which came to my department at the German Hospital, after having been for four weeks on a milk-albumen starvation diet.

The reader, who so far has patiently followed my theoretical arguments, is justified at this point to ask for proofs of my statements, and I am in a very happy position to supply these proofs, not only by the research of this regime, but also by comparing it with the material under the opposite regime, which I had a chance to watch for seven years, when I had the honor of being one of the chiefs of the Medical Department of the German Hospital in San Francisco, besides dozens of typhoid cases which I saw in consultations. The most striking and convincing experience was furnished by the material in the typhoid ward of the German Hospital under a different regime of treatment.

My cases under the regime mentioned above, and the cases of my esteemed and most able colleague, who divided with me the care of the Medical Department, under the regime of the milk-albumen diet. There was no selection in the material. The cases brought in were alternately assigned to the first and second Medical Department, but in the same ward.

The unprejudiced observer could not be otherwise than most strongly impressed by the different appearance of the patients under these two different regimes.

Here the patient bright and cheerful, in spite of a temperature of 104 or 105°; his cheeks are flushed from the fever, but he occupies a comfortable position in bed and he takes his food gladly when approached, without being forced. He does not seem to have lost in weight, and he often will complain of hunger. One or two enemata have to be given daily as the patient is, as a rule, constipated. There are no serious complications from the respiratory tract, with the exception of slight bronchitis; no bed sores, no phlegmasia, etc. I do not recall a hemorrhage for years and I recall two perforations only,—one in a Japanese boy, brought to the hospital in the acme of his disease, in a most emaciated condition. He was operated three hours after the perforation had set in, but died the following day. The other case was a young, robust fellow, but a drinking man, who got a relapse on the fourteenth day of his re-convalescence and experienced his perforation four days later (the 17th of April, 1906); operated immediately; complete recovery.

And there on the next bed a patient on the milk and albumen water regime! The flushed face is crestfallen, the breathing quick and labored. He is delirious or flighty, and it needs the persuasion of the nurse to make him swallow his quantity of milk; frequent diarrhea, bed sores, hemorrhages, etc.; the emaciation very pronounced. The case appears to be of the severest type. Without any doubt there are cases where the infection is of the severest type, caused by the violence of the germ, but at the same time I am convinced that many of the fatal cases were not of the severest type, but made so through weakening the defensive powers by faulty food and therapeutic measures. That leads me to submit for consideration the most advocated therapeutic measures, namely, the cold baths. Nearly every text-book, and to be sure the very best of modern ones, will advise you to use these cold baths from 75 degrees down to 60 degrees, with ice water poured over the back of the neck, to decrease the fever, brighten up the delirious patient and induce him, by means of pouring ice water to take deep respirations.

While the patient is in the cold baths, friction of the limbs is constantly executed to overcome the contraction of the peripheral blood vessels, through the chill of the cold baths, and to make the cold baths, in this way, tolerable for the patient.

By means of these cold baths, a better nutrition of the tissues is claimed. These baths are given, according to the height of the temperature, at intervals of three to six hours!

As danger of collapse is likely to occur, every text-book warns you to be prepared for such an event by providing strong black coffee, champagne, whisky, cognac, strychnine, camphor injections, etc.!!

I might be called a medical revolutionist if, in the face of so many authorities advocating these

cold baths, I dare to express myself, that I consider these cold baths in typhoid fever, a crime against nature. I realize that in uttering such an expression of criticism of an adopted routine treatment, I have to offer very strong and convincing arguments to justify my statement and my endeavor will be to show point by point, the fallacy of such treatment, and to argue the merits of the treatment which I would suggest instead.

The merits claimed by the cold baths are as follows:

First, to reduce the fever. At this point I want to impress the reader that the fever is not a disease, but only a symptom, and if it does not rise too high, a very beneficial symptom in stimulating the activity of the leukocytes—as scavengers—and of the tissues as producers of anti-bodies.

On the other hand we have to consider that the fever is created by toxins, and the height of the fever must depend upon the virulence of these toxins and their relationship to the resisting power of the tissues. If the virulence of these toxins is so great as to produce very high fever, with its detrimental influence on the nervous system, then only do we feel justified in interfering. The interference should then be directed against the cause and not against the symptom. Therefore we must use means to eliminate the toxins as follows:

I place my patient in a bath of 90 to 100 degrees. After the baths the patient is placed, without any effort to dry him, in blankets and surrounded by hot bottles. In this pack, as a rule, he falls asleep and perspires freely. Through this procedure he eliminates toxins through his body pores, and the temperature drops.

As before stated, delirium will be present in the very severest cases only, or if the patient is poorly nourished. But if that should be the case, pouring ice water on the back of his neck and chest will be still more effective in a warm, or hot bath, and the shock of the cold bath is avoided. The pores have been opened and the profuse perspiration in the pack, following the bath, has certainly eliminated toxins. Such a bath is given once a day.

If the baths should excite or irritate the patient, or for circumstantial reasons should be impossible, I make use of the following routine: My patient is rolled into a hot sheet placed upon blankets and surrounded by hot bottles, and a hot drink—whisky, claret punch, hot lemonade, chamomile or lindenblue—is given. This procedure once or twice a day is sufficient and is best used if the temperature begins to drop from the height of the daily curve. If the perspiration is very profuse, it might continue even after the blankets have been removed. A refreshing sleep during this perspiration is the rule. If this procedure should be too strenuous for the patient, and a decrease of the high fever alone is sought, cold sponging every four to six hours will answer the purpose, with a drop of temperature from one-half to one and one-half degrees after the sponge.

Second: The cold baths, by contracting the peripheral blood vessels at first and dilating them subsequently by the use of friction, are supposed to increase the circulation in the skin and the tissues, increasing the tonus and preventing ulcerations (bed sores). As I stated before, the toning up of the tissues is very much more sensibly secured by taking care of these tissues by proper food in a general way.

Third: To prevent complications in the lungs. As mentioned before, the nutrition plays the biggest part, and if in existing stupor or coma, the respiration should be found to be too superficial, I have shown that effective measures can be resorted to in the warm or hot baths.

As a most important principle in allopathy is: *ne noceas!* it would be my duty to investigate the danger of the cold bath treatment.

In this connection, it is evident at a glance that the frequent manipulation of a patient, who is threatened with hemorrhages or perforations, on account of ulcerated morbid conditions in the intestines, will surely not decrease the possibility of such an event (Liebermeister recommends these baths hourly)!!!

I wish further to call your attention to the fact that by putting your patient in the cold bath you have induced a contraction of all the blood vessels in the skin and by doing so you suddenly throw a larger amount of blood, with increased pressure, into the intestines, where the ulcers are situated, and as the blood vessels near the base of an ulcer may be already eroded, a hemorrhage may be started by this suddenly increased pressure.

Furthermore, you throw for the time being quite an overwork on the heart—and this a toxemic heart! You must realize that the difference between the body heat of your patient's skin—with a fever of 104 or 105 degrees—and the temperature of the bath—70 to 60 degrees—amounts to 34 to 45 degrees! No wonder that your textbooks will warn you to beware of the danger of collapses.

We see collapses in our practice under all kinds of circumstances; collapses after surgical operations, hemorrhages, acute gastro and intestinal disorders, pure physic shocks, etc.; these are matters which, as a rule, are very easily restored to the normal state, by our routine stimulants, and will not be the subject of unreasonable alarm. Quite different is a collapse brought upon a toxemic heart that has been laboring under the strain of this toxemia for days and weeks, and by this strain has used up quite an amount of stored reserve power. *The collapse of a toxemic heart is the most critical condition that might arise in a fever.*

I have seen such collapses in and after these cold baths, and although the heart responds to stimulants for a short while, the damage done was mostly irreparable, and the outcome was fatal.

The statistics which are generally used to prove the efficacy of this Brand treatment in the United States, as well as in Europe, are the government's army statistics.

Take into consideration that the soldiers picked for the army are men of eighteen to twenty-four

years of age, and only the very healthiest and strongest. Consider, furthermore, that these people are under splendid medical care from the very beginning of the predominating symptoms, and that there is no time lost in diagnosis and treatment.

My Chief Professor, Herman Nothnagel, in advocating to his students, in his lectures on therapeutics, to support nature as closely as possible, illustrated nature's power one day, with the following words:

"Gentlemen—Human nature is so strong that she will not only try to make good for her own mistakes, but also will often correct the mistakes of physicians."

Considering the juvenile vigor and hygienic conditions of the army material, it will not be surprising that these army statistics are favorable ones,—in my opinion favorable ones in spite of the cold baths.

The third point of the red tape treatment that demands to be looked into is the very common use of calomel in the first weeks, also in the whole course of the disease, with the intention of insuring a milder course by attacking the germs in the intestines and disinfecting the whole intestinal tract.

In looking again on the anatomico-pathological picture of the typhoidal infection, we must realize that the typhoid is a general infection of the lymphatic system, particularly of the lymphatic vessels of the abdomen, the mesenteric glands indeed being the most involved. The invasion of typhoid germs into the lymphatic vessels and tissues and the propagation of germs there, takes place before the lymph follicles begin to swell,—that is, in the first week of the fever. At this stage of the disease, it would be an ideal solution of the problem, if we could throw such an amount of calomel into the circulation as would be necessary to kill off the germs in the circulation, as well as those deposited in the different organs, which certainly would be an abortive treatment! But this theoretical consideration is impossible in practice. It remains therefore to think of the local disinfecting purposes of calomel.

It would be out of the question to consider, in this respect, the first week, where besides the infiltration of the mesenteric glands, the lymph follicles begin to swell! In the second week the necrosis of the swollen lymphoids takes place, with formation of ulcers and crusts lasting to the end of the second and into the third week.

In the fourth week, after all necrotic tissues have broken away, healthy granulations prepare the healing of the ulcers, which takes place during the fifth and sixth week. If a relapse sets in, we find infiltration of lymph follicles, which so far have not been involved, and also of the previously infected ones. A local effect of calomel, therefore, could only be considered in the phase of ulcerations and granulations.

Now, these morbid conditions, even if left to themselves, will produce an increased peristalsis; hence the liquid stools, which certainly is not a favorable condition for ulcerations. By administering calomel we invoke increased peristaltic action, and as we know, a very vigorous one. Assuming that deep seated ulcers might be present and a strong peristalsis sets in, it is easy to understand that the danger of hemorrhage and perforation is increased.

I beg you furthermore to consider that calomel given in very small doses 1/10th of a grain hourly, until one grain is taken, is liable to irritate the kidneys. These organs have been heavily taxed already by eliminating the split up products of the proteids due to the high fever, and by the typhoid toxins resulting, to say the least, in an irritation leading to albuminuria, with hyaline casts; and now think of the additional irritation by a drug which is known to be a kidney irritant! As there are plenty of means to hurry evacuations without taking the chances mentioned above, calomel ought to be barred from use in typhoid fever.

In reading over this paper, the thought entered my mind that some of my esteemed readers might suspect that I am claiming to be original, in the matter of feeding regime in typhoid fever.

Nothing could be further from my thoughts than that. I have been raised under this regime at the European clinics, and I know that this regime has been adopted in many of the leading colleges of our country, at least, as far as the addition of carbohydrates to the milk diet is concerned. But to be sure the starving regime is still in the majority.

When I started to preach the preceding regime in our city eighteen years ago, I believe that I stood quite alone. In late years I believe that all of our leading clinicians have abandoned the pure milk diet and have added gruel and eggs to the milk regime, but I still see as a rule, a certain hesitation, a certain fear in selecting food in quality as well as quantity, to be sure I do not see anybody in this respect, to be as liberal as I am, and I am by far more liberal in my regime than the one I was taught at my mother clinics, which would not have permitted at the time, bread and butter, vegetables in puree form or meat (scraped beef, minced chicken, brains, sweetbreads, scraped young veal-steaks, Westphalia ham finely hacked), a regime which is steadily gaining ground in these days at European clinics.

As this essay was intended to be a plea for breaking away from an old red-tape regime, to one based upon modern conceptions of anatomico-pathological features looked upon with the opened eye of a self-thinking, broad-minded medical community, I wish to be pardoned if I have dwelt at length upon the subject in question, but as I had to plead for a logical consideration of the matter, I had to bring logical arguments to substantiate the justification of a change from the old red-tape to an antagonistic modern conception of the treatment.

X-RAY DOSAGE.

By HOWARD E. RUGGLES, M. D., Roentgenologist St. Luke's Hospital, San Francisco.

A simple, accurate method of measuring dosage of X-rays is needed, not alone in treatments (which should be given only by experts), but equally as

much in radiography and fluoroscopy, so that the safe limits of exposure may be determined.

The methods in general use are clumsy and more or less inaccurate, especially those which depend on color changes in tablets which are compared with standard tints. Different operators vary considerably in their estimation of the end points, and furthermore, it is not always convenient or possible to include one of these meters in every exposure of any length.

A much simpler way of getting at it depends upon the fact, especially emphasized by Sewall Cabot of Boston, that the quality and quantity of radiant energy given off by a tube depends absolutely upon the quality and quantity of electrical energy supplied to it. We have been using part of this idea for some time in the form of milliamperemeters in the tube circuit which tell us the quantity of current going into the tube. But the other factor is equally important, *viz.*: the quality of the current or *the voltage* on the tube terminals. This is the factor which measures the penetration of the rays; a tube of high penetration requiring a high voltage to force even small amounts of current through it, and a tube of low penetration requiring comparatively low voltages to light it up. It is best measured by means of the parallel spark gap. Table I shows the relation between effective voltage and the spark gap in inches on the usual interrupterless type of apparatus.

Another fact which seems to have been pretty generally overlooked is that the chemical and physiological action of a tube depends upon the whole amount of energy going into it; not the milliamperage alone, or the voltage alone, but the product of the two, or wattage, just as the amount of light given out on an electric circuit in a house is measured not by volts or amperes alone, but by watts. Such being the case, the old superstition that a low tube is more apt to cause burns than a high one is untenable; a high tube will burn just as quickly as a low one if you put the same amount of energy through it. The reason that this idea is so firmly rooted in the minds of most radiographers is that the coils we formerly used were unable to deliver as much energy to a high tube as they did to the lower ones. With more powerful transformers, such is no longer the case.

For the benefit of those who may doubt the preceding proposition the following experiment is offered. Cover half of a 5 x 7 plate with lead and expose the other half for 2 seconds to a tube backing up a 7-inch spark while taking, for example, 5 milliamperes of current. Reverse the plate, covering the exposed end, and let the unexposed half receive double the current of the first exposure for the same length of time with a tube which backs up only a 2½-inch spark while carrying the full amount of the current. If the target distance has been the same in both cases, and the exposures accurately made, the resulting deposits on the plate will be indistinguishable, proving that the chemical action has been the same.

The first (a 7-inch gap—70,000 volts) received 70×5 M. A. or 350 watts for 2 seconds.

The second (a 2½-inch gap—35,000 volts) received 35×10 M. A. or 350 watts for 2 seconds.

Each half has received the same amount of energy.

The same thing has been demonstrated physiologically: A boy with extensive favus of the scalp received on one side of his head an exposure of 6 milliamperes at 80,000 volts for 5 minutes and on the other side 12 milliamperes at 40,000 volts for the same time; the resulting reactions and epilation were identical in every way.

Extensive measurements have shown that a dose just sufficient to produce an erythema and epilation in the average patient is administered by 2,400 kilowatt minutes at 10 inches target distance; in other words, a tube of a penetration corresponding to 40,000 volts (or 40 kilo volts) could be run for 60 milliampere minutes before administering a full dose, *i. e.*, if it were delivering 6 milliamperes, the patient could be exposed to it for 10 minutes (at 10 inches from the target).

Table II shows the same thing, the first column being voltages figured in terms of parallel spark gap, the second column giving the number of milliampere minutes.

The operation of the method is really very simple, for example:

A patient has had two exposures of a hip—one with a tube at 50,000 with 10 milliamperes for 1 minute, another with a tube at 60,000 with 8 milliamperes for 3 minutes.

Is it safe to expose again? The patient has had: 10 milliampere minutes at 50,000; at 50,000 the dose is 50 so 1/5 there; 24 milliampere minutes at 60,000; at 60,000 the dose is 40 so 3/5 there. So the patient has had 4/5 of an erythema dose and it would not be safe to give another exposure inside of three weeks.

It will perhaps be objected that the method requires too close observation of the measuring instruments and target distance. That would seem to be an advantage rather than an objection; the more we watch and record our current and spark gap values, and the less attention that is paid to the appearance of the tube, the more exact our work will be and the more uniform will be our results.

With the target more than 10 inches from the patient's skin the length of exposure varies as the square of the distance, 12.2 inches allowing 50% longer exposure than at 10 inches, 14 inches allowing double the exposure at 10 inches, 20 inches allowing four times the exposure at 10 inches.

The figures in the accompanying tables apply to the current from the usual type of interrupterless apparatus delivering rectified alternating current. Induction coils give 10% to 20% more voltage for same length of spark gap, depending on rate of interruption and inductance used, so the exposure with them must be diminished correspondingly.

Portable outfits of the high frequency type deliver

such varying amounts of energy that the method is not at all applicable to them.

TABLE I.

Showing voltage equivalents of spark gap distance between needle points.

Inches	Volts
3	40,000
4	50,000
5	56,000
6	65,000
7	71,000
8	78,000
9	85,000

TABLE II.

Showing relation between spark gap distances and dosage in milliampere minutes.

Inches	Milliampere minutes
3	60
4	47
5	40
6	37
7	35
8	30

VITAL STATISTICS.*

By E. GOODMAN, M. D., San Francisco.

In these times of intensive research and rapid-fire discoveries, it appears like foolhardiness or presumption for one of the rank and file to comment on the ways and deeds of the powers that be; yet the greatest discoveries and thoughts sprang into being over night, out of obscurity, to upset prevailing thoughts and conditions.

Of course, if one has no peg on which to hang an argument, it is nothing short of effrontery to criticize constituted authority, just for the sake of seeking notoriety, but if one is grounded in fundamentals and sees them violated by those who should know better, it is his solemn duty to have the courage of his convictions and speak up in open meeting, be the reaction what it will.

My subject is Vital Statistics and the object of my criticism, the Government. Statistics, at best, is no sound criterion, for the reason that it does not take into consideration *conditions* and is just about as scientific as taking the specific gravity without regard to temperature and pressure, or prescribing digitalis without regard to the condition of the heart and collateral circulation.

But Vital Statistics cannot be placed in the same category with ordinary statistics, for the reason that it is not amenable to verification and therefore of no value.

I am in receipt of a pocket reference book of International List of Causes of Death, issued by the Department of Commerce, Bureau of Census, and presume every physician has been similarly favored. The incongruity of placing Vital Statistics in the Department of Commerce is the best argument for a Department of Health. Not only is it an incongruity, but it is a stigma upon the medical profession to have commerce and labor raised to the dignity of a department and making the national health and medical profession subservient to commerce. That is surely worthy of being styled "dollar diplomacy."

I must confess that I have more assurance in being able to fill out an acceptable death certificate, than I have of seeing the same verified by an autopsy. The sting is taken out of this confession by the fact that I am in plenty of good company, for a noted pathologist is quoted as saying that fully 50% of ante-mortem diagnoses are disproved by post-mortem findings.

In view of such post-mortem statistics, of what value is "Vital Statistics"? Even if violent and accidental deaths, deaths from occupational diseases, from specific infections and other obvious causes can be established, beyond the peradventure of a doubt, yet the great number of doubtful causes vitiates all results. Still, the only thing that stands between vital statistics, as a guess, and vital statistics, as a science, is necropsy. A necropsy does not admit of dispute and is eminently scientific, for it proves the cause of death.

If the government cannot establish vital statistics on a scientific basis, it were better to spend the people's money in a more profitable and creditable manner.

Compulsory post-mortems would, of course, meet with the same fierce antagonism as did compulsory vaccination, compulsory physical examinations and compulsory disclosure of private medical formulae, or even compulsory education, in the long ago.

But the sentimentalism could be overcome. The best arguments would be that it would forever banish the fear of being buried alive; that the features would not be disturbed; that no part of the remains would be retained for exhibition purposes, without consent; that the body would be given back for burial; that the dead would aid the living in the matter of longevity.

Having thus unburdened myself, I am ready to be disrated, or prosecuted for "lese majeste."

* Read before the San Francisco County Medical Society, November 17, 1913.

THE MEDICAL SITUATION OF THE NEW WORKMEN'S COMPENSATION ACT.*

By J. ROLLIN FRENCH, M. D., Los Angeles.

The new Workmen's Compensation law, which went into effect January 1, 1914, is a broad measure, relating to compensation insurance and industrial safety. It establishes an industrial accident commission to be composed of three members, to administer its compensation features, to maintain a mutual insurance fund for the state, and regulate provisions relative to safety.

All classes of employment come under this act, excepting farm labor and domestic service, which are at present protected by common law liability, but may elect to come under the Boynton act.

Compensation is payable for every injury caused by accident arising out of and in course of employment, unless due to intoxication or wilful misconduct, and is payable generally on a 65% basis, after the first two weeks, with fixed maximum and minimum limitation and for a varying period of time, depending upon the nature of disability.

In addition to the above stated compensation for the injured employees, the employer must furnish and pay for reasonable medical, surgical and hos-

* Read before the Los Angeles County Medical Association, January 15, 1914.

pital treatment, for a period not exceeding 90 days from date of accident.

It is this feature of the law that is of interest to the doctor. You can readily see that the accident cases have been taken out of the hands of the "shyster" lawyers and put into the hands of the doctors, to determine how much shall be paid the injured man, because now it is the doctor who virtually signs the checks on the insurance companies' treasurers when he signs the applications for compensation for the injured, as a result of an accident.

Are we going to, or have we earned the name that has been applied to the lawyer, "shyster"?

It has been said that it depends on which side of the fence we are on, what we see. I am going to try and draw the picture of each side of the fence that we may view our own back yard as well as that of our neighbor.

First, I am going to draw the picture as the doctors see the situation, relative to the ridiculous fee bill which the insurance companies have asked us to sign. I might here say that we should feel proud of the members of our Society, because as far as is known, but very few have gone on record as admitting that their medical and surgical services are worth but 30 cents.

The Casualty Underwriters' Association, which is composed of nearly all of the leading casualty insurance companies doing business in California, with the Adjusters' Association, met in San Francisco in December, and formulated the ridiculous fee schedule that was published in the Bulletin of the Los Angeles County Medical Association under date of December 23, 1913.

By virtue of their policies issued to protect the employers, the insurance companies are obligated to pay full medical aid, from the date of accident, as well as lost time after two weeks.

The board insurance companies and the state will not tolerate other insurance companies cutting their rates, yet they turn around and cut the rates of their surgical services in order to promise their policy holders a return dividend.

It is my opinion that before the state or anyone else should attempt to regulate the fees for services rendered, they should take into consideration the usual fee that has been paid, or consult with a representative body of people with whom they wish to do business. There is no question in my mind but that a reasonable concession should be made because of the fact that collections would be 100% cash, but I do not think it just, that the physicians be asked to give all their profits for the benefit of the policy holders.

If the members of this Society are going to tolerate such a ridiculously low fee schedule at this time, we had better get into some other line of business. Needing the work is no excuse, because if we tolerate this cut at this time, it will not be long before others may be expected. The insurance companies should not be considered as charity patients; they are going to make more money this year than ever before, because they have increased their rates many times. I consider that they will not have nearly as much to pay in the way of claims for accidents, etc., if the proper medical attention is given by responsible physicians, as they have had heretofore under the old liability law, yet to hear them talk, you would think they were all getting ready to go into the hands of a receiver.

We must take our stand now, or never. We must "hang together" or else we will "hang separately." Talk to your professional friends and have them in turn talk to their friends. If the insurance companies cannot get you to sign their fee schedule, they will have to pay you a reasonable fee for your services. They are going about securing signatures to this schedule in a clever manner: they come to you and ask you to sign their schedule with the understanding that you are going to get all of their work; they will go to your friend with the same story. He signs also, but when you come to read the agreement, you will see that the contract is one-sided; you agree to treat in accordance with their schedule, but they do not agree to anything. They will use our names to get others to sign and so on, until they have us where they want us.

Use any reasonable means you wish to get business, but do not sign a one-sided, stipulated, definite cut in prices with no hopes of making it up in another way, aside from stuffing your bills or treatment, which would be nothing short of stealing. Do not make an agreement that you know you cannot honestly live up to and make a reasonable profit.

The insurance companies have added to their premiums an amount that is adequate to care for reasonable medical charges. If they can get us to work for nothing, of course they will be that much ahead.

Now let us see what our neighbor's back yard looks like, or why the insurance companies have asked us to accept this ridiculous fee schedule. Members of the medical profession have forced the insurance companies to have some definite schedule upon which they may base the adjustment of professional bills. Not long ago, I read an article that was entitled, "Insurance Companies Squeeze the Doctor Again." Did you ever stop to think that some doctors have squeezed the insurance companies many times more than the doctor has ever been squeezed?

You would be surprised if I told you of the many times that the insurance companies have been squeezed by our local physicians. They have had stuffed bills, and they have had unreasonable ones, yet in most cases they have taken their pill and said nothing. To give an example of this:

Not long ago, one of our local physicians attended a few accident cases over a period of six or eight weeks; two or three of the cases were operative, the remainder were only minor. A bill for something like $1700 was rendered. I am satisfied that had the cases come as individuals, the physicians would have been well satisfied with $500 cash.

Another case was brought to my notice. A girl cut her finger slightly, with a bread knife; no infection, but the doctor dressed the wound

fifteen times; he knew the insurance company was to pay the bill.

The following is another marked example: A professional malingerer came to me not long ago as a patient. He came in with a tear in his shirt, dusty coat, etc. Had "just fallen off a street-car and broken two ribs." He gave me a beautiful story, and very good symptoms, too. I examined him carefully, could not locate the broken ribs, but did not say anything at the time. The third day he came to me to sign an application on an insurance company for $400, the amount that was to be paid for two or more broken ribs. I told him I would not sign for two broken ribs because I did not think he had any. He left in great anger; would sue me, the street-car company, and the insurance company. He came back the following day with certificates from five different doctors, stating that he had anywhere from two to four broken ribs. I told him I did not care if he had fifty certificates, I would not sign unless he would have an X-ray picture taken. He settled with the insurance company for $14, instead of $400, because he said he was afraid of the X-ray.

I do not question that many doctors of Los Angeles have signed applications for money on the insurance companies that they (the doctors) themselves felt were unjust, yet they felt they had to do it or lose a patient or a fee. Should that not be called a legalized hold-up?

Doctors, as a rule, are rated as a class by the layman; therefore, those that will stoop to the aforesaid irregularities give a black eye to the whole profession. Why can we not have an active "grievance committee" that would chastise the man that renders the unreasonable high bill as well as the one that agrees to work for thirty cents and grafts the rest? I think that if the Los Angeles County Medical Association would handle irregularities of all kinds, as do the Los Angeles County Bar Associations, that a higher standard would soon be maintained. Much credit is due our Secretary for the hard work he has done to bring our Society to its present standing and efficiency.

It has been said, "In Union There Is Strength," and it is my opinion that if we would combine our activities and influence, and manifest a mutual interest in the protection of others, as well as the upbuilding of our present Society, we would soon put our Association on a business basis that would be a great factor for the betterment and strength of our profession of the future.

SOME PRINCIPLES GOVERNING THE INDICATIONS FOR CAESAREAN SECTION.*

By ALFRED BAKER SPALDING, M. D., San Francisco.

Good results can be obtained in abnormal obstetrics if sufficient attention is given to the patient during pregnancy, and if the patient is confined by a competent physician in a hospital devoted exclusively to obstetrics. Well conducted maternity hospitals are able to maintain a maternal mortality of a fraction of one per cent., a fetal mortality of less than five per cent. and a general morbidity rate of under fifteen per cent. This is an important point to consider in discussing the indications for such a valuable operative procedure as is Caesarean section because the relative values of all obstetrical operations are based upon experience obtained in such perfected institutions.

It is unfortunate but true that the great majority of women must be confined by midwives or by very busy general practitioners for very small fees, so small that it does not pay the general practitioner to train especially for obstetrics or to give unusual care to the individual patient. However, as many women deliver themselves safely, the attendant learns to interfere as little as possible with his normal confinements at the time of labor.

When labor is protracted, or convulsions occur, or the cord is prolapsed, or serious hemorrhage starts, then the attendant is in danger of making a bad matter worse by efforts to accomplish a rapid delivery. He does not, as a rule, treat his obstetrical patients with the same consideration that he gives to his other surgical patients. He attempts to perform operations which are well known to entail risk to both mother and baby, amidst the worst possible surroundings, with meager equipment and with insufficient assistants. One thing only impels him to send his patient to a hospital and place her in the care of a better trained accoucheur and that is the absolute impossibility for him to drag by physical force the child from the maternal passages.

Besides the obstetrician and the general practitioner, there is a third attendant who attends to a considerable number of confinements, although he rarely speaks of his attentions. This is the surgeon practitioner. With this type of attendant, the patient is usually saved unnecessary examination or injury from forceps for the attendant does not claim either unusual diagnostic acumen or obstetrical skill. When emergencies arise, demanding interference, he often plays his one trump card—Caesarean section.

To discuss the indications for Caesarean section, it is necessary to consider not only the pathological condition present and to compare the relative values of Caesarean section with other time-honored operations, but one must take into consideration the type of attendant who is called upon to meet the situation. Judgment is needed to determine not only when the operation is indicated, but also if conditions justify it. An operative crust should not overflow the diagnostic pan.

For instance, in the case of moderate contraction of the pelvic outlet, either in the bi-ischial diameter or in the posterior sagittal diameter, with the child presenting by the breech, the general practitioner may be forced to do a craniotomy on the aftercoming head because he fails at the opportune time to diagnose the condition; the surgeon may do a needless Caesarean section while an obstetrician might meet the condition by placing prophylactically a pubiotomy saw.

It is easy to quote a list of indications for the operation of Caesarean section. One reads of the relative and absolute indications in cases of pelvic

* Read before the San Francisco County Medical Society, September 23, 1913.

contraction, of eclampsia, placenta previa, prolapsed cord, breech presentation, tumor formation, heart and kidney disease, Boston disease, and previous Caesarean section. My own experience is not great enough to permit me to express myself with assurance upon the relative values of this list of indications; nevertheless, it will probably prove more interesting to base my inferences upon this experience, meager though it is, than to quote from literature you have probably already read.

In reviewing my records in preparation for this paper, I find that I have operated myself or have assisted others with this operation in twenty-five instances. In every case there existed a grave danger for the mother or child which was met successfully, so far as all the mothers were concerned, by the Caesarean operation, and yet in some instances, I am convinced delivery could have been accomplished by other procedures. To discuss the indications, these cases will be placed in groups according to the frequency of occurrence.

Most frequent are the patients with pelvic disproportion. In routine examination of private and hospital patients, I have met with contracted pelvis, over a series of seven hundred confinements in a little less than 10%, but have seen in this series only two patients with a true conjugate of 7½ cm. or less. With one of these Caesarean section was most satisfactory, while with the second an attempt at premature labor was fatal for the child and caused a severe laceration in the mother. In two consultations, this serious degree of contraction was met with twice. In one case, the Caesarean operation gave perfect results; in the second case, the condition was overlooked until the patient was in a most serious state as a result of several hours of anesthesia and protracted attempts at high forceps delivery. A most difficult craniotomy and extraction resulted in a complete laceration of the perineum.

Ten Caesarean sections were performed for moderate degrees of pelvic contraction. In four cases the operation was performed with perfect results to both mother and baby after severe test of labor had failed to cause the head to engage. I have always made it a rule to have patients with moderate degrees of pelvic contraction undergo a good test of labor unless some other condition besides the pelvic contraction existed to indicate operation. With one patient in the above group, after two days of ineffectual labor the presentation changed spontaneously from vertex to breech and the Caesarean section followed. This patient subsequently delivered herself spontaneously of a living child. Patients delivered with forceps or version after a test of labor have not given satisfactory results. I am convinced that uncomplicated patients with moderate degrees of pelvic contraction should undergo a test of labor, if they can be protected against infection during the test, as by far the larger number will deliver the head into the cavity of the pelvis. But when the test fails, I believe resort should be had to Caesarean section if the patient is in competent hands, or resort to craniotomy should be had if the patient is in the hands of an inexperienced operator.

The six cases of doubt in which no test of labor was carried out were complicated as follows: One patient gave a history of previous loss of child by high forceps; two patients had had previous Caesarean section; one patient was an old primipara with an ankylosed hip; one patient was an old primipara with an outlet contraction; one patient was a rachitic, debilitated dwarf with chronic nephritis. All the mothers of the above series recovered but the baby of the rachitic dwarf died shortly after the operation.

There were four Caesarean sections because of pelvic tumor. One was a simple parovarian cyst that, had an accurate diagnosis been possible, could have been left alone to rupture, probably without danger to the patient. One was for fibroid of the uterus in a patient who had lost one child because of the tumor and who requested a Caesarean at term with myomectomy and resection of the fallopian tubes. One was for fibroid with a history of previous Caesarean section and one was for a massive hematoma which developed suddenly during the course of a normal labor. The operation was successful for all these mothers and their babies. The last patient subsequently gave birth spontaneously to a live child, but suffered later in a third confinement with spontaneous rupture of the uterus. It is needless to state that all patients who have once had a Caesarean section require most careful watching in subsequent labor and not infrequently need a second Caesarean section for no other reason except that the uterus is weakened with scar tissue.

Three patients have been operated on because of placenta previa. All were primipara and all were saved their babies without serious injury to themselves. In my experience with placenta previa, I have never lost a mother but have not saved one-half of the viable infants by resort to version, for which reason I am in favor of recommending Caesarean section in suitable cases of placenta previa. Two patients with broken compensation from serious endocarditis and one patient with great edema of legs, vulva and abdomen were operated. The mothers all survived and the two viable children were saved. One baby died of immaturity as the operation was performed for broken compensation at the sixth month.

Of the remaining three cases, one was operated by my interne during my absence, for eclampsia. One was operated in consultation for serious toxemia resulting from several weeks of pernicious vomiting because of the need for rapid delivery, and because the attendant was an expert abdominal surgeon with insufficient confidence in a vaginal operation. One Caesarean was performed for the sole indication that a previous Caesarean had been done and labor was becoming protracted. No indication for the previous Caesarean could be ascertained. Of these three patients, all recovered and one baby was delivered alive and well. The other two babies, one from the eclampsia patient and one from the pernicious vomiting, were both born dead.

This completes my experience with Caesarean section. The list of indications is quite varied and the results have been satisfactory. In obstructed labor, the judging of indications is not very dif-

Summary:

No. Cases....	Indication	Time of Operation	Mortality of child.....	Mortality of mother...
2	Con. Pelvis T. C. 7½	Before labor started	0	0
4	Con. Pelvis Mod.	After prolonged test of labor	0	0
1	Con. Pelvis Mod. Loss of 1st baby by forceps	Before labor started	0	0
2	Con. Pelvis Mod. Previous Caesarean	Before labor started	0	0
1	Con. Pelvis Mod. Old primipara	Before labor started	0	0
1	Con. Pelvis Mod. Outlet contraction	Before labor started	0	0
1	Con. Pelvis Mod. Chronic Nephritis	Before labor started	1	0
1	Parovarian Cyst	First stage labor	0	0
2	Fibroid Uterus	Before labor started	0	0
1	Large Pelvic Hematoma	After prolonged labor	0	0
3	Placenta Previa	First stage labor	0	0
1	Endocarditis Broken compensation	Sixth month Pregnancy	1	0
1	Endocarditis Broken compensation	Last month Pregnancy	0	0
1	Toxaemia with massive oedema vagina and perineum	At onset of labor	0	0
1	Eclampsia	First stage labor	1	0
1	Pernicious vomiting	Fifth month Pregnancy	1	0
1	Previous Cesarean Section	First stage labor	0	0

Total, 25.
Mortality viable babies, 9%.
Mortality mothers, 0%.

ficult but necessarily requires great patience. In serious hemorrhage from placenta previa or accidental hemorrhage, rapid judgment is needed and much depends upon the operator. One must not place too great risk upon the mother without first considering carefully the excellent record of Braxton Hick's version.

It requires careful judgment, which can be obtained only by treating many patients, to decide individual cases of placenta previa just the best method of procedure that will give the best results to mother and child. There is no doubt, however, that in some varieties of placenta previa, good operators can obtain their best results by recourse to Caesarean section.

In general, mechanical conditions which endanger the life of the child, as well as non-infectious conditions which weaken the uterine muscle or strain the maternal heart, offer indications that one must consider in thinking of Caesarean section. So long as infection does not complicate the condition, Caesarean section is a most valuable operation but in the presence of infection or in doubtful cases where the danger of subsequent infection is a probability, Caesarean section has only a limited field. Toxic conditions such as eclampsia, pernicious vomiting and nephritis usually influence the child so badly and the lowered resistance of the patient so often precedes infection that these conditions can only rarely be considered to indicate Caesarean section.

There is no doubt that the sphere of indications for Caesarean section is growing and there is considerable danger that the pendulum will swing too far toward the operative side. It should not be forgotten that even in good hands the operation carries with it a maternal mortality in the neighborhood of five per cent., or ten times the maternal mortality obtained in confinements generally.

HYGIENIC SHOEING—ANATOMICAL FACTS VS. CONVENTION AND STYLE.*

By C. C. CRANE, M. D., San Francisco.

The evidence to be submitted consists, in the main, of four facts:

(1). In the examination of the feet of one thousand adult Puerto Ricans, who had never worn shoes, virtually not one presented evidence of foot-illness or deformity.

(2). In the examination of the feet of one thousand individuals, who have worn shoes for a considerable period of time, and in whom the feet are not troublesome—that is, are symptomless—it is rare to find a foot that is in normal condition.

(3). A very large percentage of shoe-wearing people present evidence of foot trouble which is promptly relieved by shoeing in accordance with anatomical facts.

(4). After a canvass of practically all of the local shoe stores, the hygienic shoe is found to be conspicuously infrequent.

In virtue of these observations, is it at all surprising or remarkable to note the amount of foot-trouble which is so prevalent as to deserve to be called endemic! The claim that every foot-ill is due to faulty shoeing is not made. The claim that every foot which is unanatomically shod gives rise to subjective or objective evidence of abuse is not

* Read before the San Francisco County Medical Society, November 18, 1913.

made, but is explained by the fact that the human body, as a whole, is equipped rather extravagantly with a power that tolerates abuse, and in the distribution of such a power the feet were not slighted.

The claim that many foot-ills may be cured by proper shoeing is made. The claim that many foot-ills, *not* curable by proper shoeing, might have been entirely prevented by proper shoeing at a proper time, is made. In short, if these claims can be substantiated, then a vast number of foot-ills come into the realm of preventable diseases and should, therefore, be properly dealt with as such.

Realizing the predicament, we naturally inquire for information that will aid us in placing the blame where it belongs: in finding out who is responsible, so that a repetition of, or a continuation of, the error may be, if possible, prevented.

Where does such blame belong? Whose is the responsibility? What excuses are offered by the victims and by them who victimize?

When the situation is analyzed it seems evident that the responsibility for the prevailing conditions is one that is participated in by three parties, namely: the shoe manufacturers, the shoe-wearing public, and the medical profession.

The excuses of the three parties alluded to carry about the same weight, or lack of weight, as is usual with excuses, and serve to excuse to about the same degree that excuses usually serve to excuse—*nil!*

The manufacturers meet you rather openly upon their platform—which is, by the way, a monetary platform—and frankly tell you that they are not students of anatomy; that they are not dictators of fashion; that they are not advocates of reform. They tell you that they are business men who intend to make only such shoes as the public will buy. Their point of view is practicable and business like; what more can be expected from the business man? Their attitude offers one important item of help in solving the problem, and this item should not be lost sight of, namely: *they intend to produce and offer for sale only such shoes as the public will buy!*

Now let us consider the public and their excuses. They attack a hygienic shoe from the artistic standpoint, backed by a considerable amount of unacknowledgable pride and a well-nigh morbid desire for style. That they have not inquired into the rationale of the hygienic shoe is obvious; that they have taken little or no interest in prophylactic shoeing is evident. To acquaint them with the fact that their shoes do not fit their feet, hardly makes them curious enough to satisfy themselves upon the point. To assure them that that which, to their minds, constitutes beauty in an unhygienic shoe is, at least, anatomically untenable, arouses little more reaction than a questioning look or a shrug of the shoulders.

To insist that style is, at best (or, may I say, at worst) only a mental caprice, a subtle whim, a passing fancy, and that it is accepted, as it was offered, without any particular consideration as to the efficiency or the worthlessness or the abusiveness of the thing declared to be stylish; even this precipitates no mental disturbance and aids the argument in favor of hygienic shoes too little to warrant the public in accepting them. But point out to the public that the stylish shoe is the agent which is responsible for many of their foot-ills, and immediately they are aroused; they are interested in any measure which promises relief; they are open to argument; they will accept proof, and the proof is not difficult to establish.

Thus the public's excuses are seen to be not unusual, not remarkable. Stylishly they are correct; artistically they are incorrect and anatomically they are impossible! But is the public deliberately and wilfully doing those things which will unquestionably produce physical mishap? The idea is ridiculous. They are merely following the line of least resistance in that they are accepting what the style-makers prescribe; and so it appears that we have another item which is of great importance in solving the complex problem, and it is perfectly obvious: *the public needs instruction as to what constitutes hygienic shoeing.* If sufficient instruction is given to the public, a demand will be made upon the manufacturers, and if the public insists upon hygienic shoes the manufacturers will supply them.

Now as to the excuses of the medical profession. They have none! But having no excuses does not excuse them nor does it release them from entire responsibility in the conditions which exist. The position of the medical profession in this matter has been more or less neutral; their attitude disinterested unless, perchance, some member may have been the victim of ills produced by unhygienic shoeing.

After such an experience not much time has been lost in argument to convince and convert him. Henceforth it is at least his privilege (and perhaps his duty) to see to it that others, equally unfortunate, may profit by his experience and be relieved or, better still, be prevented from undergoing such unnecessary suffering. Through such an experience is evolved the third item of help in the solving of the difficult problem: *the medical profession must be depended upon to spread the knowledge concerning hygienic shoeing in such a manner that the painful consequences incident to unhygienic shoeing shall not be allowed to occur.*

Not long since we were astonished at the results of the crusade against yellow fever. The end in view was not so much the *cure* of the disease as the *elimination* of the disease. More recently a very active campaign has been in progress against tuberculosis, and here again the attempt has been made not only to *cure* those already afflicted with the disease, but also, and the more happily, to *exterminate* this disease which has been aptly denominated "The White Plague." The results obtained and obtaining in those instances are not only magnificent tributes in a great measure, at least, to the medical profession, but also are they most worthy efforts because of their economic value and the preventing of suffering and the postponing of death.

Why not apply some prophylactic measures against the many preventable ills brought about by unhygienic shoeing? To be sure, yellow fever,

tuberculosis, and foot-strain are not equally serious and, therefore, not equally important, inasmuch as the latter is rarely, if ever, fatal; but the results of faulty shoeing represent a very real condition of preventable waste, of needless suffering, and of unnecessary dissipation of that most precious asset of us all, human energy!

The obstacles in the way of hygienic shoeing have been mentioned and they should not be difficult to overcome, provided that the campaign is begun in the right way and started from the right quarter.

The manufacturers must have a demand made upon them for hygienic shoes. This demand must come from the public, and the public, in order that they may be able to create the demand, must be instructed along the line of hygienic shoeing, and such instruction must come from the medical profession; not so much from the specialist as the men in general practice; not so much from those who are engaged in the relief of such suffering, as from you who have it in your power to prevent such suffering.

Undoubtedly the greatest good can be rendered to the greatest number of people by the watchfulness and oversight of the family physician who has so much to do with the public at large, as he is the one who is so frequently consulted, first of all, in just such instances. His opinion is valued highly; his judgment is relied upon; his position is unique in that his decision is final. If he advocates hygienic shoeing we shall have hygienic shoeing, and this at no far distant time.

It is pertinent to inquire as to what constitutes a hygienic shoe.

The ideal shoe must have two qualifications. First, it must allow free foot function; second, it must promote strength of the foot when in use.

Ideal shoeing can be obtained only with the introduction and continued use of moccasins. Whether or not the public will ever see fit to adopt moccasins for universal use is a question, but at present such adoption is hardly probable enough to warrant serious consideration.

It is evident, then, that we must accept a near-ideal substitute, and the question arises, How shall it be patterned? And the answer is, Patterned to fit a normal foot. To-day there are, in the market, plenty of shoes for infants and children which are more or less desirable, in that they are roomy, broad-toed, of fairly good fit and quite comfortable.

Such shoes are lacking in those details, the presence of which would stamp them as being hygienic. Such shoes are easily obtained in the market; in fact, it is rather more easy to obtain such shoes than otherwise, and so, on the chances, the infant will probably begin his shoewearing career with shoes which, although not ideal, are not abominable.

(To be concluded in May, 1914.)

SOCIETY REPORT

ALTA DISTRICT SOCIETY.

Whereas, The insurance companies of the State of California, in furnishing protection to the employers of labor under the Employers' Liability Act passed at the last session of the legislature, have issued a Fee Bill with contract to care for the patrons that is not adequate to the services required. Such fees as they have prescribed bring the profession of Medicine and Surgery on the level of unskilled labor; therefore, be it

Resolved, That we members of the Alta District Medical Society refuse to enter into such contract and lend our knowledge and skill to enhance the profits of said companies.

(Signed)
W. E. TRUEBLOOD,
C. A. TILLOTSON,
W. WHITTINGTON,
J. A. MOORE,
A. N. LOPER,
PAUL R. WALTERS,
CHARLES M. GRAHAM.

PROCEEDINGS OF THE SAN FRANCISCO COUNTY MEDICAL SOCIETY.

During the month of February, 1914, the following meetings were held:

Medical Section. Tuesday, February 3.

1. Medical Hospital Bookkeeping. W. R. Dorr. Discussed by Harry Sherman.
2. A Brief Summary of the Registration Law for Nurses and of the Requirements for Registration. Miss Annie Jamné, R. N. (by invitation).
3. The Nursing Situation Since the Passage of the Law. Miss Gertrude Courtright (by invitation).

General Meeting. Tuesday, February 10.

1. The Present Status of the Sympathetic Nervous System, Especially from the Standpoint of Vagotony and Sympathicotony. Julius Mast Wofsohn. Discussed by W. F. Schaller, W. C. Alvarez, H. D'A. Power, R. L. Wilbur, H. C. Naffizger, H R. Oliver and René Bine.
2. Some Aspects of the Duodenum in the Roentgen Picture. (Illustrated by Lantern Slides.) C. W. Lippman.

Surgical Section. Tuesday, February 17.

1. Notes on the Operative Treatment of Pott's Disease. Demonstration of Three Cases. W. I. Baldwin. Discussed by G. J. McChesney, J. T. Watkins and C. C. Crane.
2. Practical Method of Approach for a Nasopharyngeal Fibroma; with Lantern Slide Demontration. Henry Horn. Discussed by F. Fehleisen and Cullen Welty.
3. Value of High Frequency Current in Treating Vesical Calculi. Martin Molony, John M. Williamson. Discussed by V. G. Vecki, Henry Meyer and S. H. Beasley.

Eye, Ear, Nose and Throat Section. Tuesday, February 24.

Dr. H. Y. McNaught, Chairman. Dr. H. S. Moore, Secretary.

H. Y. McNaught: Acute Frontal Sinusitis with Epidural Abscess. Case operated by Dr. B. S. Stevens, with a swelling over the right eye from pneumococcus infection of one week standing. There was temperature 104½, pulse 150; headache, especially over cerebellum; stiffness of neck; slight mental disturbances. At operation there were found fistulae through both plates of the frontal sinus, giving subperiosteal and extradural abscesses. The opening in the inner wall was enlarged, the mucous membrane removed and the patient is making an uneventful recovery.

H. Y. McNaught: Serous Labyrinthitis in One Ear with a Purulent Labyrinthitis in the Other. Case of child eight years of age; eight weeks sick in September, 1913, with cerebrospinal meningitis. During the sickness child suddenly exclaimed "My ears!" and was found to be totally deaf. At present the hearing is good in the right ear, total deafness in the left. Caloric negative in the left,

positive in the right. Turning shows an imbalance of 30-15.

C. F. Welty: Comparative Demonstration of Radical Mastoid Operated Cases; Two with and Two without Skin Graft. The quickness of healing and the influence on hearing of a lack of scar tissue about the stapes were pointed out. In the discussion the tendency of the skin graft cases to return for treatment in after years was dwelt upon and brought forth the acknowledgment by Dr. Welty that he would not consider it advisable to skin graft a case that could not see a competent specialist at least once in six months.

J. J. Kingwell: Three Cases of Radical Mastoid Operation. Cases were shown to demonstrate the remarkably good hearing that could be obtained by intelligent tamponing methods and careful attention to surgical cleanliness after operation.

H. B. Graham: Healed Tuberculosis of the Middle Ear. Case 20 years of age; suppurative since childhood; radical operation; tampon after treatment. Complete healing with decreased hearing. Diagnosis made clinically, pathologically and with guinea-pig inoculations.

J. Cowan. Gross and Microscopical Demonstration of Specimen of Carcinoma of the Larynx.

H. B. Graham: Demonstration of Gross Specimen of Tuberculosis of Larynx. The clinical diagnosis in these cases made by Dr. Graham favored in the first case tuberculosis, and in the second carcinoma; both were well advanced and neither showed enlargement of the cervical lymph nodes. Dr. Cowan pointed out that this lack of lymph gland involvement was not uncommon and should not weigh heavily in the diagnosis. He pointed out the cords as the seat of origin in the majority of carcinomatous cases.

Dr. Redmond Payne: Cysticercus under the Retina. Case in a man who had lived in the Sacramento Valley; source of infection probably river water or vegetables. In the lower right quadrant, toward posterior pole of eye, there is a well defined gray detachment about half the size of a hazel nut. In the crown of this gray detachment, or cyst, is a glistening white body about the size of a split pea which changed its shape from day to day—from round to oblong, to dumbbell and round with a long projecting neck. There were some floating, veil-like opacities of the vitreous, a small area of swollen retina near the papilla, media otherwise clear. In the upper superior quadrant there was a well defined detachment of the retina at present showing no cysticercus or connection with the original body, but the inference is that this is a second developing cysticercus. No vision in upper field; for fingers only in lower, at distance of 10 feet. Dr. Hulen suggested the method for removal which he saw used in Paris, consisting in the use of a return current syringe, the twin nozzle of which was introduced into the detachment sack.

M. W. Fredrick: Death Following Exploratory Puncture of the Maxillary Sinus. Case of healthy man in whom a puncture was being made for the first time. The needle entered the sinus and the pus had been washed out. Air was being introduced when the patient collapsed and died immediately. Autopsy showed a slight mitral valve incompetency, but nothing to account for the death. As only a few drops of a five per cent. cocain solution with adrenalin was used, Dr. Fredrick did not consider this as a probable cause. He considered that the death was due to shock, and in the discussion it was pointed out that the unpleasant symptoms which often appeared on the introduction of air into the accessory sinuses might indicate an intolerance of the lining membrane for sudden high pressure.

Dr. Graham reported that the case exhibited at the previous meeting as a probable osteo sarcoma of the nose had been operated by Dr. Stanley Stillman. The left superior maxilla was removed and the tumor mass found to extend through the middle of the nose to and occupying the right antrum. It was apparently entirely removed, and on section proved to be a chondro-sarcoma. Two weeks following the operation the patient was doing nicely.

SAN JOAQUIN COUNTY.

The regular monthly meeting of the San Joaquin County Medical Society was held at the residence of Dr. S. E. Latta, Friday evening, January 30. The following members were present: Drs. J. D. Dameron, R. B. Knight, W. F. Priestly, H. C. Peterson, W. E. Gibbons, Margaret Smyth, G. W. Walker, J. V. Craviotto, Minerva Goodman, C. F. English, L. Dozier, Hudson Smythe, Mary C. Taylor, H. E. Sanderson, S. E. Latta, F. P. Clark, C. R. Harry, Barton J. Powell, L. R. Johnson, W. W. Fitzgerald, Dewey R. Powell, E. A. Arthur, I. S. Zeimer, A. M. Tower and R. T. McGurk, with Drs. E. G. Lewis of Escalon, Max Rothschild of San Francisco, Burt Howard of Sacramento and R. D. Cashatt as guests.

The secretary read the minutes of the last regular meeting and of the special meeting held January 28. The names of Drs. Cashatt of Stockton, Lewis of Escalon, Posey of Modesto and Gould of Ripon were placed in the hands of the Committee on Admissions to be reported on at the next meeting. It was regularly moved and seconded that discussion of the cut rate fees proposed by casualty companies be deferred until after the papers had been read and discussed.

The president then called upon Dr. Max Rothschild to read his paper, "Treatment of Tuberculosis with Artificial Pneumothorax." Dr. Rothschild's paper was an excellent one. It was concise, well presented and particularly instructive. He was followed by Dr. Burt Howard of the State Tuberculosis Commission, who told of the need of better organization in the fight against tuberculosis, and requested the members to be more careful about reporting tuberculosis, and advised that a committee be appointed to encourage reporting of tuberculosis and to see what could be done about establishing a dispensary here.

The discussion was opened by Dr. H. C. Peterson, who told of the value of routine work for tuberculous patients, recalling the practices of some of the European hospitals which he had visited. The following members also took part in the discussion: Drs. Walker, Tower, Fitzgerald, English, Harry, Dozier, Dameron and D. R. Powell.

The discussion having been closed, the president called for the report of the committee appointed at the special meeting to draw resolutions relative to the fees of the casualty companies for the members and hospitals to sign. The chairman, Dr. C. R. Harry, reported that the resolutions were ready for the signatures of the members, and requested permission of the society to add to the resolutions a clause stating that any member pursuing a course contrary to the intent of the resolutions be expelled from the society. The request was granted and the resolutions were signed by all the members present.

The business of the meeting having been completed, Dr. Latta invited the members to the dining-room for refreshments.

R. T. McGURK, Secretary.

SANTA BARBARA COUNTY.

Preceded by a special dinner at the Arlington Hotel, attended by Drs. Bakewell, Barry, Brown, Flint and T. A. Stoddard, over which the latter as retiring president presided, the Santa Barbara County Medical Society met in regular annual session for the election of officers at the Arlington Hotel, January 12, 1914, at 8 p. m. The call to order came from the president, Dr. T. A. Stoddard, the secretary, Dr. Barry at his desk. Pres-

ent: Drs. Bakewell, Barry, Brown, Flint, Sidebotham, C. S. and T. A. Stoddard, and Wells—a total of eight members; no guests or visitors present.

Upon motion, a call for election of new officers for 1914 was made by the chair, resulting as follows: President, Dr. Wm. H. Flint, Santa Barbara; Vice-President, Dr. George S. Wells, Santa Barbara; Vice-Presidents at Large—Dr. George R. Luton, Los Alamos, and Dr. Wm. T. Lucas, Santa Maria; Secretary-Treasurer, Dr. Wm. T. Barry, Santa Barbara; Delegate (to serve for two years), Dr. Benjamin Bakewell, Santa Barbara; Delegate-Alternate, Dr. T. A. Stoddard, Santa Barbara.

After transacting other business the society adjourned.

Preceded by a complimentary dinner to the members given by its newly-elected president, the Santa Barbara County Medical Society met in regular monthly session, February 9, 1914, at the Arlington Hotel, and was called to order by the president, Dr. William H. Flint, at about 8 p. m., the secretary, Dr. Wm. T. Barry, at his desk. Present: Drs. Barry, R. Brown, Cunnane, Flint, Low, C. S. Stoddard, T. A. Stoddard and Wells; guests, Drs. McFadden, Marion, Ga., Preston Miller, Baltimore, Md., and Wright, Santa Barbara—a total of eight members and three guests. The society first listened to the reading of minutes of the previous meeting, January 12, which were duly approved. The president then called for clinical cases. Dr. Rexwald Brown responded with a most improving and interesting series of reports of fractures, including those of the elbow, tibia, fibula, femur, etc. These fractures and treatment results were illustrated by upwards of a dozen fine X-ray plates. These were duly discussed by the members and guests. Dr. McFadden of Georgia made a few remarks regarding the little trouble occasioned by the presence of encysted shot in the body unless in contact with bone. A peculiar case of hemorrhage from nose and throat of obscure origin was reported by Dr. Wells. Dr. Flint mentioned a strange case of purpura in a woman coming under his professional observation, the patient registering a temperature of 104°.

The paper of the evening was then called for, and presented by Dr. Geo. R. Wells, "The Question of Freeing Nasal Passages." After the reading and discussion of this, Dr. T. A. Stoddard presented the report of the Special Fee Committee, which was approved and ordered printed. The secretary presented a communication from the Anti-Tuberculosis Society of California, and was instructed to reply thereto. The president was authorized to appoint a committee of three for revision of constitution. Dr. Flint read a letter from Mrs. Starbach, president of the Cottage Hospital Association, which received the proper attention and action. The society appointed Dr. Flint to deliver the annual commencement address February 24, when the Cottage Hospital Training School for Nurses would graduate a class. The chair announced the following standing committees, the first named being chairmen: Program and Scientific Work—Drs. Barry, Law, T. A. Stoddard; Public Health and Legislation—Drs. Bakewell, Conrad, Lucas; Censors—Drs. C. S. Stoddard, Cunnane and Wells.

Adjourned.

WILLIAM T. BARRY, Secretary.

N. B.—The coming Annual State Meeting, to convene at Potter Hotel, was duly discussed.

SOLANO COUNTY.

Resolved, That the Solano County Medical Society is in favor of State Insurance providing the compensation be adequate for the service rendered; that we do not believe the present schedule of fees adequate, and that we are opposed to all insurance that is handled by private casualty companies, wherein physicians' services are contracted for.

A. V. DORAN, M. D.,
Sec'y. Solano Co. Med. Soc.

Passed at the meeting of the Solano County Medical Society held March 10, 1914, and a copy ordered sent to the State Journal.

Dr. Robert Dempsey of Vallejo was elected delegate and Dr. P. B. Fry, Benicia, alternate.

TULARE COUNTY.

The Tulare County Medical Society at its regular monthly meeting held February 10th passed the following resolution, this being, with the exception of the last paragraph, like the one passed by the Los Angeles County Medical Society:

Whereas, The State Industrial Accident Commission, in order to carry out the provisions of the recently enacted Workingmen's Compensation law of California, which is intended to safeguard the economic efficiency and prosperity of citizens engaged in industrial occupations, an object with which the ethical medical profession is in deep sympathy, as is evidenced by the service of its members in the past, in caring for many of the unfortunate sick without cost, in hospitals, dispensaries and in private practice; and

Whereas, The Industrial Accident Commission of California, in order to carry out the provisions of the above law, has found it necessary to adopt a definite and fixed medical and surgical fee table in which minimum fees are enumerated, these fees being below those in general vogue among the ethical profession of this state; and

Whereas, The ethical medical profession itself has refrained from the adoption of an arbitrary fee table because it is difficult to make a fixed charge for services in the treatment of disease and injuries, where the amount of skill and responsibility both required and given is a constantly varying factor, so that a fixed and arbitrary fee table could do injustice to both patient and physician; now, therefore, be it

Resolved, By the Tulare County Medical Society that this society, because of the above and other reasons, respectfully requests the California State Industrial Accident Commission to pass a resolution and print on the fee table they have submitted, a statement to the effect that the Commission understands fully the difficulty and inequality of an inelastic fee table for medical and surgical services, and that the minimum fees presented by the Commission are so made because of the limited resources of the State Industrial Accident Fund, and because of the comparatively small financial income of the bulk of the citizens whom the industrial law is especially intended to protect and benefit; and be it further

Resolved, That it is the opinion of the Tulare County Medical Society that some such resolution or statement of record by the California State Industrial Commission, should be made by that honorable body, lest as time goes on, an injustice be done the very profession, which, above all others in the past, has borne the brunt of aiding and helping the unfortunate sick and injured of our commonwealths; and be it further

Resolved, That the Tulare Medical Society requests the State Industrial Accident Commission to appoint each licensed physician in each community as their representative so that the patient may have his usual choice of physician.

It was also voted that the Society request its members not to sign contracts with liability insurance companies until after the meeting of the State Medical Society to be held April 14, 15 and 16, whose action would guide them.

A. W. PRESTON, Sec.

YUBA-SUTTER SOCIETY.

"Resolved, That members of the Medical Society of Yuba and Sutter Counties shall not enter

into any contract or agreement, written or verbal, with the Industrial Accident Commission of the State of California, or any Industrial Accident or Casualty Insurance Company, to render any surgical services or attendance for a consideration less than is usually charged for similar services in private practice, or that named in the schedule of prices contained in the fee bill adopted by the Medical Society of Yuba and Sutter Counties; and be it further

"Resolved, That no member of this Society shall assist or counsel with any physician who shall sign or agree to enter into any such contract or agreement."

The above and foregoing is a true and correct copy of a resolution passed and adoted by unanimous vote at a meeting of the Yuba and Sutter County Medical Society, duly and regularly held at Marysville, Yuba County, California, on January 22, 1914.

YUBA AND SUTTER COUNTY MEDICAL SOCIETY.
By A. L. MILLER,
President.
By EVERETT EDWIN GRAY,
Secretary.

BOOK REVIEWS

Diagnostic Methods. By H. T. Brooks. 8vo. Cloth. 2d Edition. Pp. 82. St. Louis. C. V. Mosby Co., Publishers. Price, $1.00.

This book gives the standard laboratory tests. The remarks on their interpretation are just scanty and superficial enough to conduce to that slovenly and rule-of-thumb manner of working which is the bane of so many laboratories. The book is intended for "medical students, hospital internes and physicians who have a limited amount of time to give to laboratory work." These classes of workers may be strenuously urged not to use it, if their laboratory work is to be worth the doing. L. E.

Manual of Obstetrics. By John Osborn Polak, M. Sc., M. D. D. Appleton & Co., publishers, 1913.

This handy little volume is a very good presentation of the essential facts and principles of obstetrics, and makes an excellent guide to anyone, student or practitioner, interested in the subject. It certainly fulfills the purpose for which the author wrote it. C. B. M.

A Text-book of Physiology. By Isaac Ott. Fourth edition, revised and enlarged. F. A. Davis Company, publishers, Philadelphia, 1913. Price $3.50.

This fourth edition is improved chiefly by additions to the physiology of the gastro-intestinal tract and of the heart. Too little attention is given the ductless glands. Consideration of the urinary secretion is given almost the same space as that allotted to the entire series of ductless glands. The book is condensed, yet easily readable. On still doubtful ground the statements of fact are conservative. H. C. N.

The Flements of Bacteriological Technique. By J. W. H. Eyre, M. D., Director of the Bacteriological Department of Guy's Hospital, London. Second edition, rewritten and enlarged. Octavo of 518 pages, with 219 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $3 net.

The second edition of Eyre's well-known work on bacteriological technique presents some alterations and additions made necessary by recent progress in this field.

This work is quite a mine of information for the bacteriological worker, covers the field of bacteriological technique quite thoroughly and is an invaluable companion. The illustrations are particularly helpful; directions are written in clear, concise English.

This book can be heartily recommended to all those interested in the study of bacteria, and this edition should surpass the well deserved circulation of its predecessor. R. H. M.

"The Nervous and Chemical Regulators of Metabolism." Lectures by D. Noel Paton, M. D., B. Sc., Professor of Physiology in the University of Glasgow. Published by MacMillan & Co., Ltd., London, 1913. Price $2.00.

In these days when verily there is no end to the making of books, it is a pleasure to read one so condensed and so well arranged as this one is. It covers the ground of internal secretions very much as Professor Schäfer did recently in the Lane Lectures. The fact that the author has been a steady contributor to the subject adds greatly to the value of his conclusions and his resumé of the literature.

There is one chapter on the so-called trophic influences from the central and autonomic nervous systems, and another very interesting one on the relations of internal secretion to nervous action. Recent studies have shown that these substances may act by sensitizing the sympathetic nerve endings. Lack of the secretions may entirely block the stimulus. The discussion on the interrelation of the different glands is, as usual, very interesting, and the charts on page 185 may be found convenient.

The thoughtful internist will find scattered throughout the book many suggestions for diagnosis and treatment. W. C. A.

"A Manual of X-Ray Technic." By A. C. Christie. Published by J. B. Lippincott Co., Philadelphia and London, 1913. Price, $2.00.

It is a pleasure to find a short book on X-ray work which is quite up-to-date and not padded with pictures of interest to the historian alone. It has been written, primarily, to help army physicians, when, on a transfer, they find themselves suddenly obliged to use X-ray apparatus. What has been included is good, and our only regret is that the book is so short. The great need today is for authentic information that will guide a man in purchasing his new outfit. X-ray salesmen are generally eligible for high office in the Ananias Club, and therefore are of little help to the poor doctors. For instance, the head of the factory that sold us our second coil assured us that there was absolutely no inverse to the wonderful machine. We humbly asked why two large valve tubes were included in the outfit and were told that that was just to help us at the beginning; when we learned how to adjust our tubes we would have no further trouble.

For good serious work the rotary transformer has come to the front and its principle is well explained in Dr. Christie's book.

Although the developer he advises may be good, it is probably better to use the formula that comes with each plate. If the manufacturer's chemists do not know what to use, nobody will.

The book is well worth the money and many men will doubtless find it more satisfying and convenient than the larger, more elaborate but less up-to-date books. W. C. A.

"Causes and Cures of Crime." By Thomas Speed Mosby. Illustrated. Published by C. V. Mosby, St. Louis, 1913. Price, $2.00.

A book devoted to the consideration of crime under the following headings: Cosmic Factors; Social and Individual Factors; Eugenics; Asexualization; Education; Social Amelioration; The Theory of Punishment; Indeterminate Sentence and Parole; The New Penology. Nothing very novel is presented, and the author waxes eloquent in his eulogy of Christianity as a support of morality. Many questions are stirred up that are not answered, and the opinions of many men are quoted. His proposed prevention of crime seems to be in eugenics, education—work for everybody. The penitentiary is a misnomer. What he advises is not an eye for an eye, nor death as a preventive for further crime, but moral re-education and the indeterminate sentence. The illustrations in the book engage one's attention, but the author fails to explain them. A full kit of burglar tools is depicted, but unhappily he does not instruct us as to how to use them. S. T. P.

"Studies Concerning Glycosuria and Diabetes." By Frederick M. Allen, A. B., M. D., Published by W. M. Leonard, Boston, 1913.

In his book Allen has given us a very complete review of the literature of diabetes—perhaps the best in the English language—in addition to detailed reports of his experimental work on over 400 animals. The animal work was carried on in the Harvard Medical School, three years being devoted to the research. The first portion of his studies was devoted to the determination of sugar tolerance. His observations lead him to conclude that prolonged excesses of sugar do not lead to the production of diabetes and that the latter, therefore, cannot be due to an over production of sugar in the organism.

In the second portion of his work his results would seem to upset theories recently advanced by Noorden and his pupils as to the influence of the ductless glands on sugar metabolism in diabetes. Allen lays great stress on the part played by the nervous system in the production of diabetes and feels that in the future less is to be expected from opotherapy than from surgical measures applied to that part of the nervous system directly in control of the pancreas. Allen's book is well written and many of his conclusions, though radically different from accepted theories, appear logical.

The Practical Medicine Series. Vol. 3. Eye, Ear, Nose and Throat. Head & Mix., The Year Book Publishers, Chicago, 1913. $1.50.

Much as one deprecates predigested, concentrated and encapsulated information, served in a modern palatable form, one cannot help but admire some of the ingenious short cuts to the literature which are offered to the profession nowadays. The present volume covers most of the important information concerning eye, ear, nose and throat literature which has appeared during the past year and will prove of great assistance to the busy specialist who likes to gain a fairly complete but superficial knowledge of the literature. As is usual in American publications of this order, little attention is paid to foreign literature, the German references, when given, are strongly suggestive of second-hand reviews. The volume is worth the price, as it saves a subscription to any one of several good special journals, which thoroughly review the same matter monthly; and at the same times gives one a fine opportunity of assuming a pseudo-acquaintance with the literature of the world by the time of the annual meetings of the State and general societies in the spring. H. H.

Infections of the Hand. A Guide to the Surgical Treatment of Acute and Chronic Suppurative Processes in the Fingers, Hand and Forearm. By Allen B. Kanavel, M. D., Assistant Professor of Surgery, Northwestern University Medical School, Chicago. New (2nd) edition, thoroughly revised. Octavo, 463 pages, with 147 illustrations. Cloth, $3.75, net. Lea & Febiger, Philadelphia and New York, 1914.

This book is worthy of careful study by surgeon and general practitioner alike. Our new Workingman's Compensation Act should particularly enliven its interest to local practitioners. The harm done to wage-earners by improper recognition and treatment of affections of the hand is incalculable.

This second edition is illustrated by 147 engravings, 14 of them new. Many of the old cuts have been made more useful by an improved system of lettering and reference, many have had colors added. Were the references done away with, and the lettering of the illustrations substituted by a direct naming of the parts designated, as is done in anatomical text-books, they would leave nothing to be desired. In the chapter on treatment of felons of the distal phalanx we miss mention of the horseshoe incision carried around the tip of the finger in a plane parallel to the nail, first advocated, as far as we know, by Noesske of Kiel.

The book is one of the most important and useful of surgical monographs—we urge its wide distribution. L. E.

A Treatise on the Diseases of Women. Palmer Findley, M. D., Professor of Gynecology, State University of Nebraska. First edition, 1913. One volume, 954 pages, 632 engravings, 38 plates. Price, $6.00. Lea and Febiger, Philadelphia and New York.

It is an appropriate sequel to the author's "Diagnosis of Diseases of Women." In a lucid manner the author makes clear many of the perplexing problems of gynecology. The book reflects the ability of its writer to elucidate his subject which has always been accredited to him during his teaching career. Owing to conservation of words Dr. Findley has been able to include practically all of the important elements in the treatment of the disorders of women, and also much pathology with the salient facts in diagnosis, in one volume.

We highly recommend the book to undergraduate students on account of its clear text and vivid illustrations, and to practitioners owing to its thoroughness and description of the latest methods employed in gynecology.

The publishers deserve credit for such a publication. Its well printed pages with large type and ample margins contain as few errors as will be encountered in any work of this kind, all of which make the reading from a master's pen a pleasant task.

H. EDWARD CASTLE.

Case Histories in Pediatrics. A collection of histories of actual patients selected to illustrate the diagnosis, prognosis and treatment of the diseases of infancy and childhood, with an introductory section on the normal development and physical examination of infants and children. By John Lovett Morse, A. M., M. D., Associate Professor of Pediatrics, Harvard Medical School; Associate Visiting Physician at the Infants' Hospital and at the Children's Hospital, Boston. Second edition. W. M. Leonard, publisher, Boston, 1913.

The first edition of this admirable work was reviewed in the issue of the Journal for July, 1911. It is with pleasure that we see the shape which the second edition has taken. The number of case histories has been doubled and covers the subject

of pediatrics more fully than did the first edition. The histories are in most readable form and the method of discussing diagnosis and treatment and prognosis is most stimulating and should be of great value not only to students but especially to practitioners. The introductory chapter on the normal development and physical examination of infants and children is certainly a small book in itself and worthy of most considerate and attentive study. The illustrations are good and very practical, which is more than can be said of the illustrations in a great many text books on pediatrics. The long experience of Dr. Morse is well shown in the wide variety of cases whose histories are given. The index is very well gotten up and should be most useful to the busy practitioner. In every way this book is a most serviceable book for the general medical practitioner and certainly to every practitioner who is interested in children's work. Any one will find it most interesting and stimulating to read over Dr. Morse's analysis of his cases. W. P. L.

W. B. Saunders Company, publishers of Philadelphia and London, have just issued an entirely new eighty-eight page illustrated catalogue of their publications. As great care has evidently been taken in its production as in the manufacture of their books. It is a descriptive catalogue, telling you just what you will find in their books and showing you by specimen cuts, the type of illustrations used. It is really an index to modern medical literature, describing some 250 books, including 30 new books and new editions. A postal sent to W. B. Saunders Company, Philadelphia, will bring you a copy—and you should have one.

DEPARTMENT OF PHARMACY AND CHEMISTRY.

Edited by FRED I. LACKENBACH.

(This Department will be pleased to supply information concerning products passed or rejected by the Council on Pharmacy and Chemistry of the A. M. A., or submit queries to the Council when information is not available.)

NEW AND NONOFFICIAL REMEDIES.

Since publication of New and Nonofficial Remedies, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

Radium and Radium Salts.—Radium is used in medicine in the form of its chloride, bromide, sulphate and carbonate. The therapeutic value of radium salts depends on the emanations which are given off from the radium. Radium emanation consists of alpha-rays, beta-rays and gamma-rays, the latter being similar to X-rays and therapeutically the most useful. The quantity and concentration of radium emanations are expressed in terms of "curie" and Mache units. A "curie" is the amount of emanation in equilibrium with 1 Gm. of radium and a microcurie is one millionth of a "curie." A microcurie is equivalent to about 2,500 Mache units. It has been claimed that radium emanation is of value in all forms of non-suppurative, acute, subacute and chronic arthritis, in chronic muscle and joint rheumatism, in arthritis deformans, acute and chronic gout, neuralgia, sciatica, lumbago and in tabes dorsalis for the relief of lancinating pains. Its chief value is in the relief of pain. Surgically marked results are obtained in the removal of epitheliomata, birthmarks and scars. Radium may be administered in baths, by subcutaneous injection in the neighborhood of an involved joint (0.25 to 0.5 microcurie in 1 or 2 Cc. distilled water), by local application as compresses (5-10 microcuries), by mouth as a drink cure (in increasing doses of from 1-10 to 10 microcuries three or more times a day), by inhalation, the patient for two hours daily remaining in the emanatorium, which contains 0.0025 to 0.25 (average 0.1) microcurie per liter of air.

Radium Chloride.—Radium chloride is supplied in the form of a mixture of radium chloride and barium chloride, and is sold on the basis of its radium content. Radium Chloride—Standard Chemical Co., Radium Chemical Co., Pittsburg, Pa.

Radium Sulphate.—Radium sulphate is supplied in the form of a mixture of radium sulphate and barium sulphate and is sold on the basis of its radium content. Radium Sulphate—Standard Chemical Co., Radium Chemical Co., Pittsburg, Pa. (Jour. A. M. A., Jan. 3, 1914, p. 41).

Sodium Acid Phosphate.—Sodium Acid phosphate (Sodii Phosphas Acidi), $NaH_2PO_4H_2O$, is the monosodium dihydrogen salt of orthophosphoric acid, containing not less than 82 per cent. of anhydrous sodium acid phosphate. Sodium acid phosphate is administered to render the urine acid or to increase its acidity. It is used for this purpose to assist the action of hexamethylenamin which is effective only in acid urine. It should be given so that it has left the stomach before the hexamethylenamin is given. Non-proprietary preparations: Sodium Acid Phosphate, M. C. W., The Mallinckrodt Chemical Works, St. Louis Mo.; Sodium Phosphate, Monobasic, P. W. R., The Powers-Weightman-Rosengarten Co., Philadelphia, Pa. (Jour. A. M. A., Jan. 10, 1914, p. 127).

Slee's Refined and Concentrated Tetanus Antitoxin (Globulin Solution).—For description of Tetanus Antitoxin see N. N. R., 1913, p. 218. Abbott Alkaloidal Co., Chicago.

Slee's Normal Horse Serum.—For description of Normal Horse Serum see N. N. R., 1913, p. 236. Abbott Alkaloidal Co., Chicago (Jour. A. M. A., Jan. 10, 1914, p. 128).

Ampoules Emetine Hydrochloride, P., D. & Co.—Each ampoule contains emetine hydrochloride 0.02 Gm. Parke, Davis & Co., Detroit, Mich. (Jour. A. M. A., Jan. 10, 1914, p. 128).

Phenolsulphonephthalein.—A product differing chemically from phenolphthalein in that a carbonyl group of the latter has been replaced by a sulphone group. Phenolsulphonephthalein is used to determine the functional activity of the kidneys. It is injected intramuscularly or intravenously and its rate of excretion determined colorimetrically. Phenolsulphonephthalein is a red powder which yields a deep red solution with water or alcohol containing an alkali.

Phenolsulphonephthalein, H. W. & Co.—Made by a special process and said to be exceptionally pure. Hynson, Westcott & Co., Baltimore, Md.

Phenolsulphonephthalein Ampoules.—Each contains a solution of 0.006 Gm. phenolsulphonephthalein, in the form of the monosodium salts. Hynson, Westcott & Co., Baltimore, Md.

Sterile Ampoules of Mercury Salicylate.—Each contains 0.06 Gm. of mercury salicylate N. N. R., suspended in a vegetable fat. Hynson, Westcott & Co., Baltimore, Md.

Salvarsan-Ehrlich, Suspension in Ampoules.—Each contains 0.1 Gm. of salvarsan, suspended in a vegetable fat. Hynson, Westcott & Co., Baltimore, Md.

Neosalvarsan-Ehrlich, Suspension in Ampoules.—Each contains 0.15 Gm. neosalvarsan suspended in a vegetable fat. Hynson, Westcott & Co., Baltimore. Md. (Jour. A. M. A., Jan. 24, 1914, pp. 297 and 298).

Elarson.—Elarson is the strontium salt of chlorarsenobehenolic acid, containing about 13 per cent.

of arsenic and about 6 per cent. of chlorin. It has the action of arsenic, but the arsenic being in lipoid-like combination is said to be better utilized and to exert its therapeutic effects in smaller doses than other organic arsenical preparations. Also, it is said to produce relatively little gastric irritation. It is sold only in the form of Elarson tablets. The Bayer Co., New York (Jour. A. M. A., Jan. 31, 1914, p. 379).

Since publication of New and Nonofficial Remedies, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

Serobacterins.—Serobacterins are emulsions of bacteria which have been treated by the application of the corresponding specific immune serum. Bacteria as treated are supposed to contain specific amboceptors, so that immediate union with the complement of the patient's serum is said to occur. Hence, their action is supposed to be more rapid than that of ordinary vaccines. They are also said to be free from the negative phase and the general and local reactions produced by ordinary vaccines.

Staphylo-Serobacterin, Mulford.—This is a sensitized Staphylococcic Vaccine. H. K. Mulford Co., Philadelphia, Pa.

Strepto-Serobacterin, Mulford.—This is a sensitized Streptococcic Vaccine. H. K. Mulford Co., Philadelphia, Pa.

Typho-Serobacterin, Mulford.—This is a sensitized Typhoid Vaccine. H. K. Mulford Co., Philadelphia, Pa. (Jour. A. M. A., Feb. 7, 1914, p. 457).

Disinfectant Krelos, Mulford.—A solution of cresols or higher phenol homologues and rosin soap. The phenol coefficient, ranging from 5 to 7, is stated on the label. It is an antiseptic, germicide and deodorant. Mulford Antiseptic Krelos is an almost black liquid, having a cresol-like odor forming a milk-like emulsion with water. The H. K. Mulford Co., Philadelphia, Pa. (Jour. A. M. A., Feb. 14, 1914, p. 537).

Anti-Anthrax Serum, Mulford.—It is prepared by immunizing horses against virulent anthrax bacilli. H. K. Mulford Co., Philadelphia, Pa.

Antistreptococcic Serum Scarlatinal, Polyvalent, Mulford.—The serum of horses treated with streptococci taken from scarlet fever patients. The H. K. Mulford Co., Philadelphia, Pa. (Jour. A. M. A., Feb. 14, 1914, p. 537).

Corpus Luteum, Capsules.—Each capsule contains desiccated corpus luteum, Armour 0.3 Gm. Armour & Co., Chicago.

Corpus Luteum Tablets.—Each tablet contains desiccated corpus luteum, Armour 0.13 Gm. Armour & Co., Chicago (Jour. A. M. A., Feb. 21, 1914, p. 615).

Granular Effervescent Salicylos.—Each 100 Gm. contain strontium salicylate 6.54 Gm., ammonium salicylate 6.54 Gm. with an effervescing base of sodium bicarbonate, citric acid and tartaric acid. H. K. Mulford Co., Philadelphia, Pa. (Jour. A. M. A., Feb. 21, 1914, p. 615).

Amphotropin.—Hexamethylenamin camphorate, a compound of hexamethylenamin and camphoric acid. It combines the action of camphoric acid and hexamethylenamin, but is claimed to be free from the subjective gastric disturbances produced by camphoric acid and to be effective in smaller doses. It may be given dissolved in water or as Amphotropin Tablets containing 0.5 Gm. Farbwerke Hoechst Co., New York (Jour. A. M. A., Feb. 28, 1914, p. 697).

PROPAGANDA FOR REFORM.

Sal Hepatica.—Sal Hepatica, marketed by the Bristol-Myers Co., New York, has been refused recognition by the Council on Pharmacy and Chemistry because its composition is secret; because it is advertised indirectly to the public for the treatment of diseases; because exaggerated and unwarranted claims are made for its therapeutic qualities and because its name fails to indicate its chief constituents, but does suggest its use in liver disorders. The Council authorized publication of its report because the exploitation of Sal Hepatica is an important illustration of the way in which physicians are being made parties to the introduction to the public of a patent medicine, the indiscriminate use of which must often have resulted in harm, direct or indirect (Jour. A. M. A., Feb. 7, 1914, p. 472).

Orrin Robertson and His Seven Sacred Oils.—Robertson is a quack, at present located at Arkansas City, Kansas, who claims to remove gall-stones by means of "Seven Sacred Oils which grow in seven different climes." For the oil he claims "One oil acts specifically upon the entire head and throat. One oil acts directly upon the esophagus. One oil acts directly upon the stomach." And so it goes, each oil acting a little lower down, until we reach the seventh oil which "acts directly" on the rectum. Robertson also exploits a cure for cancer (Jour. A. M. A., Feb. 7, 1914, p. 473).

Mu-col.—"Mu-col for Cleansing Mucous Membranes" is a nostrum put out by the Mu-col Company (Inc.), Buffalo, N. Y. The following claims are made: "Mu-col obtains most gratifying results in catarrhal inflammations of the mucous membranes. Leucorrhea, Tonsilitis, Sore Throat, Cystitis, Internal Hemorrhoids, Nasal Catarrh and Pus Cases respond at once to irrigations with Mu-col solution. Strong solutions of Mu-col have proven of sterling value in treating Hives, Prickly Heat, Ivy Poison, Sunburn, Eczema, Typhoid and Scarlet Fever." Examination in the A. M. A. Chemical Laboratory showed Mu-col to be a mixture of sodium chlorid and borax, equal parts, with the addition of a small amount of aromatic substances (Jour. A. M. A., Feb. 7, 1914, p. 474).

Piorkowski Laboratories Not Licensed.—The Public Health Service announces that statements which seem to emanate from the so-called Piorkowski Laboratories in various parts of the country to the effect that these laboratories have been licensed by the U. S. Public Health Service are incorrect. Instead, after inspection, a license has been refused the Piorkowski Laboratories of Berlin, Germany (Jour. A. M. A., Feb. 14, 1914, p. 553).

Pyo-atoxin.—A box of Pyo-atoxin was submitted to the A. M. A. Chemical Laboratory for examination. The box contained thirty black capsules, having the appearance of some of the popular gonorrhea nostrums. While the synonym "Pheno-Methylene-Formate" suggested that Pyo-atoxin was a definite chemical substance, the examination indicated that the powder contained in the capsules was a mixture of hexamethylenamin and methylene blue—two well-known drugs, the value and limitations of which are known to the medical profession. Pyo-atoxin is sold by H. O. Hurley, Louisville, Ky., and is said to be "An Antitoxin Agent Indicated in Gonorrhea, Cystitis, Pyelitis and Bacteriuric Conditions" (Jour. A. M. A., Feb. 14, 1914, p. 552).

Hex-a-lith.—Hex-a-lith put out by the Smith-Dorsey Co., Lincoln Neb., is said to be a combination of hexamethylenamin and lithium citrate. As lithium citrate has a tendency to render the urine alkaline and since hexamethylenamin acts only in an acid medium, the constituents of this preparation are physiologically incompatible (Jour. A. M. A., Feb. 14, 1914, p. 555).

When is a Patent Medicine?—While some physicians, and especially some medical journals,

have trouble in classifying certain proprietary medicines, drug departments in department stores find the problem a simple one. In recent Chicago newspapers advertisements for Fellow's Syrup of Hypophosphites, Glycothymoline and Sal Hepatica look perfectly at home with Peruna, Circus Liniment and Beecham's Pills (Jour. A. M. A., Feb. 21, 1914, p. 631).

Lucile Kimball Obesity Cure.—Lucile Kimball of Chicago comes to the obese with the message "I can make your fat vanish by the gallon." All that is needed, she says, is to take her treatment—no dieting, exercise or drugs are needed. The treatment consists of pink pills, which are reported to contain red pepper, menthol and bitters, probably gentian or quassia; brown tablets which the chemists declared to be an old-fashioned cathartic pill, and a powder, reported to consist of soap, Epsom salt and washing soda (Jour. A. M. A., Feb. 21, 1914, p. 631).

Louisenbad Reduction Salt.—This is a white powder sold by Karl Landshut, Chicago, and is to be used dissolved in a bath. The A. M. A. Chemical Laboratory reported the powder to be composed of sodium sulphate, sodium chlorid and potassium chlorid. It is hardly necessary to say that taking a bath in a tubful of water in which a tablespoonful of the mixture has been dissolved would have no other effect than that obtained from bathing in the same amount of water without the mixture (Jour. A. M. A., Feb. 21, 1914, p. 632).

Effect of Tartrates.—Many of the organic acids, such as citric and acetic, are burned up in the body, giving rise to carbon dioxid and water; thus sodium citrate, for instance, acts just like sodium carbonate in the organism. On the other hand tartaric acid and its salts are, for the most part, not destroyed in the body and leave it in their original form, and animal experiments have shown that large doses of tartrates may give rise to symptoms of nephritis. However, while the claim made for a certain baking powder that the tartaric acid of cream of tartar in it is "wholesome" is evidently unwarranted. W. Post has shown that in the doses in which tartrates in the form of purgative mixtures, etc., is ordinarily given, are probably without harmful effects (Jour. A. M. A., Feb. 21, 1914, p. 616).

Administration of Lecithin.—It has been shown many times that phosphorus in the form of organic compounds as it occurs in milk or in eggs probably changes in the body to phosphate and is subsequently elaborated into lecithin. In view of this there would seem to be no physiologic or biologic reason for preferring isolated lecithin as a medicament to milk or eggs. If it is believed that lecithin is indicated, the administration of one or two raw, or even cooked, yolks of eggs will supply all the lecithin that could be metabolized and presents it in a better manner than an artificial preparation (Jour. A. M. A., Feb. 21, 1914, p. 615).

Every Woman's Flesh Reducer.—This obesity treatment is sold by the Every Woman Company, Chicago, Ill., and is a white powder smelling strongly of camphor and is of the bath-powder type. Examination in the A. M. A. Chemical Laboratory indicated the powder to be a mixture of alum, Epsom salt with an effervescing base of citric acid and sodium bicarbonate or possibly sodium carbonate with a small amount of camphor (Jour. A. M. A., Feb. 28, 1914, p. 714).

"Get Slim."—Jean Downs, New York, offers to reduce the obese with "a purely vegetable, pleasant, healthy drink." A box of "Get Slim" was examined in the A. M. A. Chemical Laboratory. It contained 15 large envelopes, the same number of smaller envelopes and a package of powder. The large envelopes appeared to contain only sugar tinted pink. The contents of the smaller envelopes appeared to be tartaric acid, also tinted pink. The white powder was concluded to be sodium bicarbonate only. The sugar and tartaric acid powders are to be made into lemonade with the addition of lemon. The bicarbonate of soda is dissolved and the solution taken before meals (Jour. A. M. A., Feb. 28, 1914, p. 715).

Pam-ala, Another Worthless Quinin Substitute.—According to advertisements Pam-ala, sold by the Pam-ala Company, New York, is "A new and efficient remedy for Malaria." Its general characters, particularly its cumin-like smell, and also the advertising claims are very similar to Sinkina, a preparation which was shown to be worthless. Most of the testimonials sent out are rather old and are stated to come from physicians in Italy, Cuba, Porto Rico, Guatemala, etc. Two recent testimonials from physicians in the United States were investigated by this Council on Pharmacy and Chemistry and in each case it was found that the opinions had been based on insufficient trials and that the physicians on further use of Pam-ala had become convinced of its inefficiency. While the evidence indicated that the essential constituent of Pam-ala is oil of cumin, proven worthless in the investigation of Sikina, a chemical analysis was not made by the Council because it was thought that the secrecy with which the identity of Pam-ala was surrounded and the extravagant and highly improbable claims were sufficient to condemn it (Jour. A. M. A., Feb. 28, 1914, p. 715).

The Action of Hexamethylenamin.—It has been shown by Hanzlik and Collins that hexamethylenamin can act in body fluids which are acid in reaction, namely, the gastric juice and the urine. The only part of the body in which hexamethylenamin may be expected to exert an antiseptic action is in the urinary tract, and then only if the urine is acid. If the urine is not acid already sodium acid phosphate should be administered to render it so. The administration of sodium or potassium acetate or citrate, in sufficient quantity, will render an acid urine alkaline and inhibit the action of hexamethylenamin (Jour. A. M. A., Jan. 3, 1914, p. 43).

Odor-o-no.—Odor-o-no, The Odorono Company, Cincinnati, Ohio, is sold as the "anti dress-shield toilet water." It is claimed to eliminate excessive perspiration and to be absolutely harmless. Confirming the analysis made by the Indiana state chemists some time ago, the A. M. A. Chemical Laboratory reports that now, as when examined before, Odor-o-no is a strong solution of aluminum chloride. When this solution is applied to the skin, it will be decomposed by the perspiration into free hydrochloric acid which will attack and irritate the skin, and aluminum hydroxide which tends to clog up the pores (Jour. A. M. A., Jan. 3, 1914, p. 54).

Hydrocyanate of Iron, Tilden.—While from the name one would judge Hydrocyanate of Iron, Tilden, to be a cyanide of iron, analysis in the A. M. A. Chemical Laboratory has demonstrated the preparation to consist essentially of equal parts of talc and Prussian blue, with traces of organic matter having the properties of alkaloids. Prussian blue is a remedy that has been used for epilepsy and found wanting (Jour. A. M. A., Jan. 3, 1914, p. 58).

The Quality of Sodium Acid Phosphate.—As it appears probable that the use of sodium acid phosphate will increase and since previous experience has emphasized the unreliability of little used drugs, the A. M. A. Chemical Laboratory deemed it important to examine the market supply. While the official sodium phosphate may be obtained of exceptional purity, the examination showed that the market supply of sodium acid phosphate was decidedly variable and much less pure, although not seriously impure. Based on the examination the laboratory proposed standards which were thought fair, both to those who make it and those who use it in their practice. The examination showed the product of the Mallinckrodt Chemical

Works and of the Powers-Weightman-Rosengarten Company to comply with the proposed standards. Acting on the report of the laboratory, the Council on Pharmacy and Chemistry decided to describe sodium acid phosphate in New and Nonofficial Remedies and, having adopted the proposed standards of purity, accepted the two brands named for inclusion with N. N. R. (Jour. A. M. A., Jan. 10, 1914, p. 142).

Hypo-Quinidol.—While no definite statements appear to be contained in the advertising matter sent out by R. W. Gardner, certain statements suggest that Hypo-Quinidol might be some sort of a quinin hypophosphite preparation. But if this is true, its action would be the same as other salts of quinin and the extravagant claims made could not be substantiated. Hypo-Quinidol is a preparation the composition of which is secret and for which highly improbable claims are made (Jour. A. M. A., Jan. 10, 1914, p. 148).

The Richie Morphine Cure.—The Richie Company was discussed in Collier's Great American Fraud series as one of the concerns which under the guise of mail-order "cures" for the morphine habit fosters the slavery of the drug habit by substituting for the morphine addiction an addiction to their villainous mixtures of opiates. More recently shipments of the Richie "cure" were seized by the Federal authorities and found on analysis to contain from 7.21 grains to 15.95 grains of morphine sulphate to the fluidounce (Jour. A. M. A., Jan. 10, 1914, p. 144).

Radium in Carcinoma.—Sparmann reports on the after-history of fifty-three cases of carcinoma treated with radium. Of these eleven have died since the treatment, in six the tumor has disappeared, in five the condition seems improved, in seven the condition is aggravated and in the others the treatment was not continued because the condition of the patients had become worse. While these results show that radium is a remedy of use in the treatment of cancer it is not a sovereign remedy as some enthusiastic reports would have us believe (Jour. A. M. A., Jan. 17, 1914, p. 212).

Expurgo Anti-Diabetes.—The claim made for Expurgo Anti-Diabetes (sold in Canada as Sanol Anti-Diabetes) that it is "the only positive cure for diabetes" and others of this character should be sufficient to condemn it. Nevertheless medical journals advertise it and physicians have been found to give testimonials for it. Examination in the A. M. A. Chemical Laboratory showed that Expurgo Anti-Diabetes is essentially a watery solution of plant extractives with small quantities of sodium salicylate and salt. The exploiters claim that their stuff contains the fruit and bark of jambul, rosemary, star anise and fluid extract of calamus, cinchona, cola, condurango and gentian. One of the claimed ingredients, jambul, was in vogue as a remedy for diabetes some years ago. It was tried and found wanting and relegated to the therapeutic scrap heap (Jour. A. M. A., Jan. 24, 1914, p. 312).

Case's Rheumatic Specific.—This is a "patent medicine" sold under the inferential claim that it does not contain salicylate. A package bearing the statement that this medicine "cures where all else fails rheumatism, muscular, sciatica, lumbago, gout, neuralgia, neuritis," contained one box of "Rheumatic and Gout Pills" and one of "Bilious and Liver Tablets." Examination in the A. M. A. Chemical Laboratory showed the first to contain sodium salicylate with some magnesium oxid and licorice root, while the second was found to contain aloin or some preparation of aloes as the purgative constituent (Jour. A. M. A., Jan. 31, 1914, p. 394).

Lactic Acid Ferment Preparations in N. N. R.—Assertions that the lactic acid ferment preparations on the market are worthless caused the Council of Pharmacy and Chemistry to examine those admitted to N. N. R. While past examinations showed this class of preparations to be most unreliable, the present market supply was found to be satisfactory. The products examined were Fairchild Culture of Bacillus Bulgaricus, Lactic Bacillary Tablets. Fairchild, Lactampoules, Fairchild, Bacillary Milk, Fairchild, Bulgaria Tablets, H. W. Co., Massolin, Schieffelin. (Jour. A. M. A., Dec. 6, 1913, p. 2084).

Sanatogen.—The fundamental objection to Sanatogen is not its outrageously high price, but the attempt to ascribe to a mixture of casein and glycerophosphate powers not possessed by these ingredients. The claim that Sanatogen is a "nerve food" is an absurdity as is any claim that the casein in Sanatogen has a greater food value than the casein in ordinary milk. Physicians who have given fulsome puffs for Sanatogen are invited to study the claims which are made for it, the following being one: ". . . it revivifies the nerves, promoting sleep and helping digestion . . ." (Jour. A. M. A., Dec. 6, 1913, p. 2085).

The Value of Echinacea.—While most extravagant claims are made for the drug, the Council on Pharmacy and Chemistry concludes that, on the basis of the available evidence, echinacea is not entitled to be described in New and Nonofficial Remedies as a drug of probable value (Jour. A. M. A., Dec. 6, 1913, p. 2088).

Texas Guinan.—The Texas Guinan World-Famed Treatment for Corpulency (Texas Guinan Co., Los Angeles, Cal.), appears to be the latest venture of W. C. Cunningham, of Marjorie Hamilton's Obesity Cure fame. It is exploited by follow-up letters giving the experiences of Texas Guinan, an actress, and offering the preparation at a sliding scale of prices, ranging from twenty down to three dollars. From an analysis made in the A. M. A. Chemical Laboratory it appears that an essentially similar preparation may be obtained by mixing one pound of powdered alum with ten ounces of alcohol and enough water to make one quart. A second specimen which was examined in the Association's Laboratory contained no alum or alcohol and appeared to be a tragacanth preparation of the "vanishing lotion" type (Jour. A. M. A., Dec. 13, 1913, p. 2173).

Colloidal Palladium.—A preparation of colloidal palladium, under the proprietary name Leptynol, is proposed as a means of causing the absorption of adipose tissue. The preparation appears one of the many thousand proprietaries produced abroad in the past year and put on the market after meager experimental work (Jour. A. M. A., Dec. 13, 1913, p. 2179).

Dowd's Phosphatometer.—According to its inventor this is a device "for taking the phosphatic index or pulse of the nervous system." Its originator, Dr. J. Henry Dowd, M. D., Buffalo, N. Y., writes enthusiastically of his instrument and of "Comp. Phosphorus Tonic." The phosphatometer is a scientific absurdity which pretends to determine the amount of phosphate in the urine and thus to measure "nerve metabolism" (Jour. A. M. A., Dec. 20, 1913, p. 2258).

Another "Cancer Cure."—Denver newspapers advertise that the International Skin and Cancer Institute of Denver claims to have a cure for cancer. The "cure" is exploited by one John D. Alkire. No doubt those afflicted with cancer, and those who believe themselves afflicted with cancer, will flock to Denver for the "cure." The actual victims of the disease will of course die, but there will be the usual number of recoveries from non-malignant sores that will be heralded as "cures," and thus will make the venture a profitable one. To the honor of Denver it may be said that some of its newspapers refused the advertisement (Jour. A. M. A., Dec. 20, 1913, p. 2248).

The Ready Reckoner.—The attempt of a proprietary exploiter to pose as the physician's postgraduate instructor comes from the promoter of a

"blood stimulating" preparation—Hemaboloids Arseniated (with Strychnia). It is in the form of a ready reckoner for the diagnosis of pathologic sputum. The thing consists of a revolving arrow, surrounded by circles containing illustrations of bacteria such as no human eye ever saw through a microscope. The physician apparently is expected to point the arrow to what he sees, or thinks he sees, in the microscope, and then, through a window in the tail of the arrow, observe the name of the organism and the disease which it produces. The device is an insult to intelligent physicians and belongs in the waste-basket (Jour. A. M. A., Dec. 27, 1913, p. 2306).

Pa-Pay-Ans (Bell).—An analysis, included with the report of the Council on Pharmacy and Chemistry rejecting the product, failed to find one of the constituents claimed to be present in the preparation—the constituent after which the medicine appears to have been named, namely, papain (Jour. A. M. A., Dec. 27, 1913, p. 2314).

ATOPHAN NOT A FRAUD.

Some notes on various things medical are prepared by the Journal A. M. A. and sent out to a number of the State Journals; they are given the heading "Propaganda for Reform." As the editor does not like the word "propaganda" he changed the title of the notes to "Interesting Frauds," for most of the items related to frauds, nostrums, etc., and he did not notice that there was a small note on Atophan amongst those published in the February issue of the Journal. Several people have been more or less exercised in their minds over this slight error, but they might have reassured themselves if they had looked in the advertising pages where they would have found the advertisement of Atophan. As this Journal does not carry fraudulent ads, they would have known there was an accident somewhere.

REPORT OF THE BUREAU OF THE HYGIENIC LABORATORY.

By WILBUR A. SAWYER, M. D., Director.

Ozone Machines:

Several electrical machines are on the market which have for their purpose the conversion of the ordinary oxygen of the air into ozone. These machines are put out by companies which claim for ozone in breathed air health giving and bactericidal powers. Experiments being carried on in the State Hygienic Laboratory show that the products of one of the best known of these machines will kill guinea-pigs before they will destroy bacteria. Therefore, the machine is worthless as far as its sterilizing effect on breathable air is concerned. The principal physiological effect on normal human beings is an undesirable irritation of the respiratory tract. This leaves to the machine only one purpose in the public places in which they are being installed, and that is the concealment of unpleasant odors. As the machines interfere with the public's power to notice the condition of the air which they are breathing, such equipment abets the evasion of furnishing proper ventilation. The presence of an ozone machine in a public place, therefore, shows that there is something to be concealed about the air furnished. The ozone machine, when intended for alteration of air in the presence of human beings, has no legitimate claim to be a hygienic device, but it is rather a cover for those who wish to evade the laws of hygiene.

EXTENSION LECTURES FOR COUNTY MEDICAL SOCIETIES.

In response to a need quite frequently expressed, the faculty of the San Francisco Polyclinic and Post Graduate School has arranged for the delivery of a number of lectures on subjects of immediate medical and surgical interest. We append herewith a list of the same, any one of which is available gratis, to County Societies of this State. In the case of such Society being more than 50 miles distant from San Francisco, it is expected that the traveling expenses of the lecturer be paid by the Society calling upon him.

It has been the aim of our colleagues in choosing the subjects of their lectures to confine themselves to themes of practical value to the general practitioner.

Medicine.

Brown, Philip King
- Tuberculosis—Mode of Infection and Spread. Illustrated with X-ray plates.
- Cerebro-spinal Syphilis—Diagnosis and Treatment.
- Intestinal Adhesions—Cause, Symptoms, Treatment.

Power, H. D'Arcy
- Treatment of Stomach and Intestines in the Light of Modern Physiology.
- What and How Much Shall We Eat?
- Functional Disorders of the Myocardium.

Shiels, J. Wilson
- Thoracic Aneurisms—Diagnosis.
- Difficulties of Differential Diagnosis in Upper Abdominal Disorders.

Mace, Lewis S.
- Artificial Pneumothorax.
- Use of Tuberculin.
- X-Ray Plates in Diagnosis of Early Tuberculosis.

Goldman, S. A.
- Malaria and Its Complications.

Taubles, G. H.
- Some New Points in Diagnosis and Treatment of Scarlatina.
- Use of Thyroid Extract.
- Organotherapy in Thyroid Disease.

Williams, Francis B.
- Practical Anesthesia.

Pediatrics.

Burrows, Fred G.
- Diagnosis of the Exanthemata.

Neurology.

Beerman, Wilfred
- Newer Methods of Diagnosis and Treatment of the Diseases of Nervous System.
- Brain and Spinal Cord Tumors.
- Hysterical Paralysis.

Surgery.

Levison, Chas. G.
- Technique of Operations on the Brain.
- Technique of Gastro-enterostomy.
- Technique of Surgery of Gall Bladder.

Barrett, Gilbert
- Infection of the Hand.
- Local Anesthesia in Surgery.
- Closure of Abdominal Parietes after Drainage Operations.

Russell, Tracy G.
- Gall Bladder Operations.
- Intestinal Adhesions.

Sherman, Harry M.
- Fractures.
- The Normal Abdomen, from the Surgeon's Standpoint.

Ryfkogel, H. A. L.
- Cancer of Tongue and Lip.
- Malignant and Tuberculous Cervical Glands—Diagnosis and Treatment.
- Goitre, Surgical Treatment.

Gynecology.

Kreutzmann, H. J.
- X-Ray, Radium and Mesothorium Treatment of Affections of the Female Genitalia.

Teass, C. J.
- Gonorrhea in the Female Procidentia.
- Points in Pelvic Diagnosis.

Eye.

Conlan, F. J.
- Dangerous Eye Conditions in General Practice.
- Refraction, Importance to the General Practitioner.
- The Ophthalmoscope in Diagnosis.

Kerschbaumer, R.
- Relation of Eye Diseases to General Conditions.
- Eye Diseases in School Children.

Orthopedics.

Watkins, Jas. T.
- Modern Treatment of Spinal Tuberculosis.
- Ununited Fractures.
- Orthopedic Treatment of Arthritis.

McChesney, Geo. J.
- Scoliosis Treatment with Special reference to the Abbott Method.
- Hip Disease—Diagnosis and Treatment.
- Infantile Paralysis—Diagnosis and Treatment.

Gottlieb, H.
- Plaster of Paris—Its Use and Abuse.
- How to Shoe the Foot.
- Contact between Orthopedics and Urology.

Ear, Nose, Throat.

Welty, Cullen.
- Suppurative Otitis-Media Indications for Operative Interference.
- Reflex Neuroses, such as Neuralgias, Headaches and Asthma—dependent on Nasal Malformation.
- When to Operate in Acute Mastoiditis.

Wagner, H. L.
- Diagnosis of Various Sore Throats and Their Treatment.
- What Shall the General Practitioner Know of and Do in Ear Drum Disturbances, Showing Method of Ear Drum Paracentesis.
- Indications and Various Methods of Removal of Adenoids, with Demonstration.

Horn, Henry.
- Stuttering and other Speech Defects, Prevention and Treatment.
- Bronchoscope—Its Use in Modern Medicine, With Demonstration.
- Accessory Nasal Sinuses—Their Diagnosis and Treatment.

Skin.

Chipman, Ernest D.
- Everyday Skin Diseases—Diagnosis and Treatment.
- Skin Diseases of Infancy.
- Parasitic Skin Diseases.

Rectal Diseases.

Zobel, A. J.
- Local Anesthesia in Ano-Rectal Surgery.
- Value of Procto-Sigmoidoscopy in Diagnosis.
- Some of the more common Ano-Rectal Diseases seen in everyday practice.

LORD LISTER MEMORIAL.

City Chambers
Glasgow, 27th January, 1914.

Dr. T. W. Huntington,
San Francisco.

My Dear Sir:

As Honorary Treasurer for the Lord Lister Memorial Fund, I have received from Dr. Keen of Philadelphia, the contributions he has collected on behalf of this movement. He tells me that you have been of great assistance to him in stimulating interest in San Francisco, and I desire, on behalf of the Committee, to thank you most cordially for your kind cooperation in this laudable cause. The Committee here have been greatly gratified by the support which the movement has received, not only in the United States, but in all parts of the world, where Lord Lister's pupils are settled, and where the name of the great surgeon is revered and loved.

With renewed thanks, I am yours faithfully,
(Signed) JOHN S. SAMUEL,
Hon. Treas.

75 Harley Street, Cavendish Square, W.
27th January, 1914.

Dear Dr. Huntington:

I have to thank you very much on behalf of the Lister Memorial Fund for the great trouble you have taken in collecting subscriptions for the Fund. It has been a great help and encouragement to us to find that the American surgeons are so cordial.

Yours sincerely,
(Signed) W. WATSON CHEYNE.

NEW MEMBERS.

Nutting, C. W., Etna Mills, Cal.
Stovall, Leonard, Los Angeles.
Conerty, Jas. M., Los Angeles.
Edwards, H. W., Los Angeles.
Anderson, Jennie H., Los Angeles.
Phillips, C. E., Los Angeles.
Allen, Albert, Los Angeles.
Strong, A. E., Riverside.
Bowen, D. S., Los Angeles.
Hare, Jessie D., Fresno, Cal.
Jones, Jr., Robert Melvin, Fresno, Cal.
Murayama, M., Fresno, Cal.
Walsh, J. F., Eureka, Cal.
Barmore, W. A., San Francisco.
Dillon, Jas. R., San Francisco.
Thorpe, T. F., San Juan Bautista.
Turner, G. Burton, San Francisco.
Rockwell, Oroville, Cal.
Hadley, Jas. A., Arcata, Cal.
Young, Jas. A., Alton, Cal.
Pascoe, M. W., Taft, Cal.
Page, P. F., Jr., Maricopa, Cal.
Morris, C. A., Bakersfield, Cal.
Bahrenburg, Geo. E., Bakersfield, Cal.
Fogg, E. S., Wasco, Cal.
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Purcell, Edw., Oakland.
Campbell, Geo. F., San Bernardino, Cal.
Howson, Carl R., Highland, Cal.
Stiles, W. H., San Bernardino, Cal.
Carter, Ray A., Los Angeles.
Adams, W. L., Fresno.
Butin, Mary R., Madera, Cal.
Foster, E. C., Hanford, Cal.
Stolle, Francis, San Quentin, Cal.
Flint, Wm. H., Santa Barbara.
Scroggs, G. A., Los Angeles.
Cowan, Jas. R., Los Angeles.
Taylor, H. N., Maricopa, Cal.
Fields, D. B., Weaverville, Cal.
Warden, C. C., Los Angeles.
Holmes, Will H., Pomona, Cal.
Wharton, Chas. G., Los Angeles.
Macklin, R. K., Pasadena.
Cahoon, Grace W., Los Angeles.
Hawkins-Ambler, G. A., Los Angeles.
Clemons, E. J., Los Angeles.
Dederer, C., Los Angeles.
Slater, John H., Los Angeles.
Blake, W. P., Los Angeles.
Bowen, D. S., Los Angeles.
Shoemaker, Harlan, Los Angeles.
McClish, C. L., Los Angeles.

RESIGNED.

Mizner, W. G., San Francisco.
White, Grace R., San Diego.

DEATHS.

Kannon, M. M., Los Angeles.
Hostetter, Abram, Monrovia.
Mules, J. H., Watsonville.
Howard, Lee Verne, Santa Monica.
Ross, Ren. O., Fresno.